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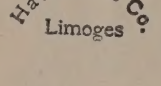

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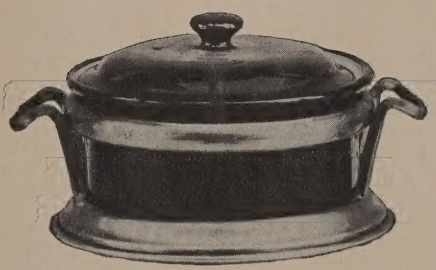

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Royal Sevres Vase and Reverse—for text see page 9

POTTERY & GLASS

VOLUME VII, No. 3. NEW YORK, SEPTEMBER, 1911. TERMS: $2.00 per year in advance. 25 cents per copy.

Pointers on Pottery

Part VII.—The Conditions By Which Work May Be Estimated Apart From Its History, Origin or Technical Nature—Form, Workmanship and Style—The Workmanship of the Decorator

By Charles F. Binns

AFTER having considered the various makes and types of clay wares it will be well to examine the conditions by which any work may be estimated apart from its history, origin or technical nature. This is always a difficult matter, both to explain and to understand. There is nothing more subtle than taste and one is almost invariably confronted by the person who will meet every criticism with the remark, "Well, I know I'm no artist, but I know what I like." If this can be supplemented by "I know why I like," very much will have been gained and this is the point to be kept in view in the present writing.

Of the many products of the human brain and hand some are to be judged by one standard, some by another. Some are simply and avowedly practical, such as a hammer or a nail; some are purely for pleasure, though it is not easy to say what these are—a pack of cards may be the means of livelihood to some one, a piece of sculpture the means of instruction to another. The wares made from clay partake of both natures. They are essentially useful, more or less, and they should be also beautiful or calculated to give pleasure. There are, therefore, in the product under consideration, three points of criticism, three measurements of quality to be taken. These are form, workmanship and style.

Form is a very comprehensive term. It includes design, both of shape and decoration, fitness and, to some extent, color. Workmanship means more than handicraft, although this is most important. It includes the nature of the body and glaze, the strength of the ware as well as the more obvious point, the skill of the potter and the decorator. Style is more subtle than either of the others. The word "chic" expresses the meaning of style very well, but is in itself almost impossible of definition. It conveys the idea of freshness and novelty combined with harmonious coloring and a general sense of pleasure. It is that quality which enables a novice to understand and appreciate an object and which, while out of place or perhaps unnecessary in a work of art, is quite essential to an article of household use or decoration.

Taking these points, then, one by one they should be considered in some detail.

Form is a suitable word to imply the thought to which the producer endeavors to give expression. In every piece of work, however ordinary, there is some kind of an underlying idea or motive. It may be the most commonplace or the most exalted, but it is there or the work would have no existence. The nature of this idea is the starting point for the estimate of quality. Thus form includes fitness, for even the most ordinary thing must have a purpose of being. The first question asked by the critic is then "Why do you exist?" The answer may be "I exist to give pleasure" or "I exist to hold cream," but whatever it be, it is the business of the critic to inquire whether this purpose is fulfilled.

Furthermore, the purpose should be fulfilled in a graceful manner. It is all very well to excuse clumsiness on the ground of cost, but the reasoning is false. It is perfectly possible to make pretty and graceful things in an inexpensive way, but the man who sets his heart and his pocketbook upon making cheap wares does not often possess the inclination or even the ability to originate pleasing things.

The mind which is uneducated in criticism too often seeks for and perhaps admires that which is easily understood. For example, some natural object is imitated in china and made to serve a purpose for which the object itself would be entirely unfitted. Familiar illustrations are found in the bird's nest flower vase, the flower candlestick and the sea urchin pepper shaker. These are in bad taste because the thing used as a model is in itself unfitted for the work which the piece of china is supposed to do. They are bad also because art is never imitation. Of course it is incorrect to call these things "art," but the word is

convenient. Design is an adaptation of form, be it natural or ideal, to the purposes of decoration, but the avowed copy is not in this class at all.

But when the dealer is approached upon such a line as this the reply usually is that he cannot afford to pass judgment because these things sell. Unfortunately this is true to some extent, probably to a less extent than formerly, but the dealer is short-sighted. If he can persuade his customers to exercise their discriminating taste, the quality of his sales will gradually improve and from catering to the people who possess no judgment he will rise to the custom of the educated.

Design, however, includes more than shape or model. Decoration, whether in color or gold, belongs to form. Great improvements have been made in this direction in recent years, but there is yet a long way to go before the European designers are overtaken. This applies not to the workmanship of the painter, but to the conception of the design itself. Too often the work of a trade designer is accepted simply because the manufacturer is unable, or persuades himself that he is unable to employ a qualified designer. This is not meant as an indictment of the trade designer, but as a criticism of the lack of originality, which is the inevitable result of one man designing for several factories. The schools of art and design are now capable of supplying trained men and women for this work and the industry is in need of them.

The second point of criticism is workmanship. The critic who takes in hand a piece of pottery will, almost unconsciously, form an estimate of the skill of the workman and his pleasure will be in proportion to his appreciation of that skill. First he will look for the work of the potter. In these days of molds and rapid production the potter does not have the chance he once had, but he can still make or mar the work. The tests of the workman are to be found in edges, embossments, seams and feet. There is a tendency, fostered by the demand for rapid work, to finish the clay surface with sponge and brush, mopping it out of all recognition and producing a mussy, inarticulate surface. This is easy and quick, so that it is favored by the workman and ignored by the foreman, but it is the death of good potting. The critic will easily recognize this state of things and will look for crisp, clear work, the modeled embossment sharp and clean, the edge nicely cut and rounded and the seams unobtrusive. Almost before anything else the critic looks at the foot of the piece. A potter who loves his work bestows as much care on the foot as on any other part, but this is the first part to be slurred over by the careless man. Unfortunately the introduction of machinery in these progressive days has made it necessary to model a foot such as the machine can turn out so that one is apt to be misled unless this point is well understood. Good workmanship is not confined to the hand worker, though, of course, he has a larger opportunity than his brother who uses a machine. The slovenly workman is betrayed by his work whether he use fingers, knife or jigger, while the craftsman is master of the means, whatever they may be.

The workmanship of the decorator is more easily understood. Most people think that they can pass judgment, more or less correctly, upon a question of drawing or painting, but in order to understand technique of the decoration of pottery some acquaintance with method is necessary. There must be considered hand work alone, printing alone and a combination of the two. Printing, again, is either copper plate or lithograph, each possessing its own qualities and limitations. Plain line printing, such as is done from the plate, or more frequently from the roller, is not difficult to appraise. The engraving clear and uniform, the design well fitted to the shape and the printing well defined. Too often there are found slovenly all-over patterns, which can be used on any shape with no fitting at all, printing carelessly done, showing specks of color in the spaces which should be clear and a general sense of cheapness. Although printing is inexpensive and is intended to be so, there is no reason why it should be sloppy. Wares with such treatment never look clean, however much hot water is used. Printing from the lithographic stone is of comparatively recent invention. It is now very extensively used and is commonly known as *decalcomania.* The particular advantages which belong to this method are the possibility of drawing with greater freedom than the copper plate can afford and the use of several colors in one print. The same points of criticism will apply as to copper plate except that, as the usual designs are much less formal in lithographic work, the question of fitting is not of great importance. To both these methods there is often added some handwork as an embellishment. Sometimes this consists of one color only, sometimes the print is used as an outline drawing and all the necessary colors are added by the brush. If there should be any difficulty in deciding whether a print has been used or the work is all painted, a small magnifying glass will at once show the printed lines if they are there. This point is important for the buyer to know because it is quite possible for a salesman to pass off this composite ware as "hand painted" if he be so disposed. That this is not imagination is shown by the fact that, in judging competitive wares, the writer has more than once detected colored prints masquerading as genuine paintings.

It was said above that style would be explained in its turn, but now that the time has come it appears more and more difficult. If one can define the term "well bred," if one can formulate the difference between a gentleman and a tough there will be some appreciation of style. In the presence of a piece of old Chinese porcelain the connoisseur feels a kind of reverence, the sensation which comes when speaking with a person of recognized eminence and in like manner any piece of work which possesses style will excite a feeling of veneration in the mind of the appreciative critic. This attribute is akin to character in the human being and is not to be confused with the quality which is called stylish by the saleslady. It is rarely if ever found without good workmanship, though clever work

(*Continued on page* 31)

Collection of Royal Sevres Porcelain Vases

The Home of Sevres Porcelain

Sevres Porcelain Among Royalty—The Imposing Factory at Sevres—The History of the Pottery—The Interior of the Plant

BETWEEN the wooded hills of Mendon and St. Cloud—those perpendicular fields of green that appear as a mighty protecting arm to the little towns nestling at their feet—lies the village of Sevres, which has become a name of worldwide repute simply on account of the factory there that produces the most beautiful porcelain in the world. The Sevres vases, urns, dinner sets, small objects and bisque figures since the time of Louis XV have been the favorite gifts of the succeeding monarchs and presidents of the French Republic whenever an occasion occurs that demands a regal present worthy of a leading nation. From this factory came the coronation gift of France to King George—a wonderful bisque group.

The design and execution were intrusted only to the most competent of the small army of artists employed by the factory. The group, which represents the arts and muses is about a yard and a half high, and connoisseurs pronounce the work of art one of the finest pieces of bisque that has ever been made.

When Alfonso XIII of Spain was married he was given a complete Sevres dinner set by the French nation. On the occasion of the King and Queen of Belgium's first official visit to Paris last summer they were presented with a beautiful Sevres fish set. Colonel Roosevelt, on his triumphal tour through Europe after his explorations in Africa, was the recipient of three gorgeous Sevres pieces, and his daughter, "La Princesse Alice," was honored with a tea service at the time of her marriage. Since 1760 no royal marriage has taken place in Europe that has not included among its bridal gifts a priceless piece of Sevres, and there is no important museum in the world that has not an example of this high art from the factory at Sevres on the narrow, winding river that divides Paris in two halves.

One is apt to associate the word factory with unattractive buildings, grimy workmen and belching smoke from soaring steeple-like chimneys, but how utterly inexact is this picture if applied to the immense buildings that are used in the production of the Sevres porcelain! The factory and museum are at the edge of the park of St. Cloud. Luxuriant foliage and continuous beds of flowering plants are enclosed within the factory grounds behind a high iron fence, the gate of which is only opened at a special time for the visitor. The first building one sees on entering is that which is devoted to pottery of the past and present, the library and the offices of the directors. The flag of the French Republic is conspicuous over the main door, while at each side is a round plaque, one with the significant inscription, "Founded at Vincennes in 1740" and the other stating that the factory was removed to Sevres in 1756.

It was then in 1740 that the Dubois brothers founded this factory at Vincennes. The product of the

pottery at that time was confined to soft porcelain, but these early specimens were quickly recognized as works of art, and soon the reputation of the almost unknown Dubois brothers was made, and their wares were in much demand. This speedy recognition was helped undoubtedly by the interest of King Louis XV, who assisted the Dubois brothers by granting a subsidy. At first the porcelain went under the name of "Porcelain de France," or "Vieux-Sevres," and these early productions are eagerly coveted today by amateur and professional collectors.

So keen was Louis XV's interest in the manufacture of this ware that he developed an ambition to become the sole owner, and this change occurred in 1760. From that period down to the present it has been the property of the Government of France.

The Sevres porcelain in 1760 had a hard fight for supremacy, and it was nearly eclipsed by the hard porcelain that was manufactured in Dresden and which was fast gaining in public favor. However, a timely discovery of a deposit of kaolin near Limoges enabled the Frenchmen to compete on even terms and eventually to outstrip the efforts of the rival factory in Dresden. When the chemist, Macquer, submitted the first successful specimens of hard porcelain Sevres ware to the Academie des Sciences in 1769, every French citizen, from the King down to the scullery maid, felt that the honor of France was saved. The Sevres porcelain would no longer have a dangerous competitor in the Dresden china.

The history of pottery, if it could be written, would be as old as the history of man. Baking clay and making vessels was an art of the savage as well as of civilized man. Clay mixed with sand and wet with water can be molded into almost any desirable shape, as every boy is now taught in his early days of school life. Baking is the next step necessary to expel the water and solidify the sand and clay, and then one has a compact substance ready for the decorator. To watch the process of development of the chalky clay at the Sevres factory to its final completion—a pliable, doughy mass transformed into a hard, durable thing of beauty—is a never-to-be-forgotten experience. These big buildings contain inner shrines that the tourist never sees, and it is rarely, indeed, that the profane eyes of an outsider ever penetrate the mysterious holy of holies where certain parts of the work are done.

"Many a dish is spoiled in the baking," runs the old adage. Not so at the Sevres kitchen. Only expert *chefs* superintend this branch of the industry. Here, at least, one might expect to find darkness, soot, dirt and the "grimy workman," with noise, confusion and disorder in every direction, but every inch of space shows methodical order and New England cleanliness. The chefs of the department all wear white linen uniforms and their duty is to watch the rise of temperature in the ovens and to keep the fires going.

In this part of the building there are 15 or 20 different ovens, which look like large circular brick towers. They are 18 feet in diameter and each one contains a swinging door, about five feet in height. When the pottery is ready to be baked each separate piece is placed in a mold and piled high in this huge heated space. At first the mold is placed in the "second story," where the heat is not so intense. Here it is kept at a temperature of 800 degrees Centigrade for four or five hours. This gradual heating is necessary, for if the molds were subjected to too great a heat at the beginning the water would dry out too quickly and the pottery would crack. Then comes the process of "cooling off." It takes several days even after the fires have been extinguished before the molds are cold enough to be handled. The second half of the baking process is then executed. The molds are placed in the lower story and kept there for 18 or 20 hours in a heat from 1200 to 1400 degrees Centigrade.

Four fireplaces are built of brick on the outside of the circular tower ovens. For the first baking large wood is used, but for the second, fine wood is substituted in order to gain the more intense heat. Coal is never employed. Openings in the wall which separates the firebox from the oven about the size of holes for stovepipes, carry the flame through them in a circular direction around the interior of the oven. To determine the proper degree of heat, a strange thermometer is put inside the oven. This consists of tiny pryamids of chemical products and special clay of variable compositions, each melting at a different temperature. Little peepholes in the brick wall about the size of a spool of thread enable the baker to look through and watch the change in this unique instrument for gauging heat, which regulates his movements in regard to his treatment of the china.

The rooms set aside for the designers, decorators, and burnishers, are always attractive points of interest. Reference maps of every conceivable color, shade or tint hang on the walls and awaken the uninitiated to the fact that shades exist that were never dreamed of by him. Strange to relate a turquoise blue color that was first used in the decoration of Sevres ware was lost after the beginning of the nineteenth century, and now, after 100 years of searching, it has been rediscovered and is giving the most satisfactory results in the present-day decorations.

In the productions of the Sevres factory there has been no decadence in art as there has been in many other branches in the art field. The policy of the factory has been to employ the best available artists of the time to originate the designs for the models and decorations, and this principle exists today. It is not generally known that the greatest living sculptor, the mighty Rodin, whom one is apt to associate with heroic satutes, bold, fearless monuments and vigorous busts, has supplied the models for some of the daintiest vases. A group of small cherubs by him, delicately proportioned, in a fantastic dance of childish abandon around the circular vase in neutral colors, is one of the most beautiful things in the modern production of the factory. A bust of the previous director of the Sevres factory, which is in one of the exhibition rooms, is also from the hand of this master.

The Glass Making Industry

Reheating Furnaces—Annealing Ovens or "Leers"—Blowpipes, Molds and Machines

Continued From the July Issue

CLOSE by the foot bench of the furnace are placed the small reheating furnaces, called *glory holes* in bottle factories and *warming in furnaces* in tableware plants. These furnaces are entirely independent of the main furnace, and are used solely for partially reheating such articles as have become too cool for working before all the desired shaping processes have been completed. As all bottles and very many other articles require such reheating before being finished, the great majority of furnace rooms have these subsidiary furnaces.

The older and still most common form of reheating furnace is stationary, and, usually, though not necessarily, of brick. Each one may have several openings and thus be available for more than one group of workers. A newer style *glory hole* is of iron, resting on a trestle work, and is easily portable to suit the convenience of the workers.

All articles of glass manufacture except offhand lamp chimneys and electric light bulbs, must be annealed; that is to say, must be cooled gradually after making. If cooled too rapidly by simple exposure to the air, the exterior pores close more quickly than the interior pores and the glass becomes brittle; either cracks immediately or will crack under slight strain.

Annealing ovens may work on either of two principles. The first principle is that of placing the ware in a heated receptacle and gradually allowing the heat to diminish until the temperature is reduced to that of the outside air. This is known as the *intermittent* or *warming oven* method. The later, and cheaper, method is by means of the continuous oven or *leer,* which in recent years has almost entirely displaced the old style oven.

The leer is a long narrow structure of brick, closed on the sides and top, but open at the ends. At one of these ends—the *mouth*—the heat is kept at a very high point, ranging from eight hundred to one thousand degrees Fahrenheit. The newly made ware is placed in the iron pans on the bottom of the leer at the mouth under this high temperature and is carried very slowly by the moving belt through zones of steadily decreasing temperatures until it emerges from the far end of the leer thoroughly annealed and practically cold, ready for packing, or for the finishing department, if the ware is of a character requiring further processes. This annealing process requires usually twelve hours, though for very thin blown ware much less time suffices. The leer must be necessarily quite long, and a few of them are under forty feet in length.

The large melting furnace, the small reheating furnaces, and the leers are the heavier, more permanent equipment of the furnace room, and constitute the principal sources of heat. The remaining equipment consists of the working tools or implements. In a factory making hand-blown ware such implements are limited to the blowpipes and molds.

The blowpipe is simply an iron pipe about five-eighths of an inch in diameter in the smallest part and ranging from four and one-half to five and one-half feet in length. At one end is a mouthpiece, into which the blower blows; at the other end the pipe is slightly enlarged for holding the glass. This end is thrust into the molten glass of the furnace, and turned until enough glass *gathers* on it to make the article desired. These pipes are kept, mouth end up, in a rack which stands near the edge of, sometimes upon, the foot bench, within easy reach of the blower, who usually has three or four of them available for use. The pipes are not always carefully restricted to the use of the same individual, nor is there any attempt at disinfection of the mouthpiece, in cases of indiscriminate use of the pipes. In only one of the visited factories were blowers provided with sets of individual pipes.

The molds are placed just outside the foot-bench. If the foot-bench is high enough above the floor of the building, the molds are set on the floor or slightly above it. If not, pits are sunk in the ground and the molds are placed therein. The ordinary joint iron open and shut mold, such as is used in the production of druggist prescription ware, is a two-piece hollow cast-iron spheroid, the hemispheres, being fastened together with heavy hinges, the cupped sides in, and opening and closing horizontally by means of two handles, about one foot in length. The inside of the molds, cast in separate pieces, are adjustable, may be removed and replaced by others, thus making a different form or size of bottle. When closed, the sides and bottom fit tightly together, while at the top there is a cupped indenture on each half of the mold which fits around the blower's pipe and also forms the long narrow neck of the bottle. These molds, in a prescription bottle house, are placed in pairs a few inches apart, so that one mold boy can operate two. Variants from this type of mold will be described later. It is sufficient here to note that their form and position in the economy of the furnace room are identical.

When pressing and blowing machines are used no molds, such as just described, are necessary, the machines themselves doing the molding. Otherwise the presence of the machines does not greatly change the appearance and organization of the furnace room, and, because of this, an account of the operation and functions of such machines may be reserved until later.

To complete this broad description of the furnace room, it is necessary to mention the coal-gas producers.

Comparatively few plants produce their own gas from bituminous coal, but when this is done the producers are usually placed in a separate room back of the furnace, but in the same building. In only one of the furnace rooms visited, however, were such producers placed in a separate building at a comfortable distance from the furnace room, although the proximity of the gas producer to the working room of a furnace is a great, if not the greatest, source of objectionable fumes in a blowing room. No detailed description of the mechanism of a fuel-gas producer need be given here, as it is not in any sense peculiar to the glass industry.

Retail Trade Notes

HAHNE & COMPANY, of Newark, one of New Jersey's largest mercantile institutions, is this week celebrating its fifty-third anniversary. Preparations for the event extended through several weeks. Merchandise men gathered goods for special sales; decorators were at work arranging beautiful effects both inside and outside of the store; automobiles and wagons, drivers and horses were burnished up to take part in a street parade. More than two thousand souvenirs are being distributed among visitors and customers. The growth of the Hahne & Co. establishment, from a little bird store covering nine hundred square feet in 1858, to the immense plant of today, covering 633,500 square feet, is one of the most interesting phases of Newark's wonderful growth, and well serves to mark the progress of the city toward the goal set for it by its more progressive neighbors.

A new department store has been opened at Broadway and Rockaway Avenue, Brooklyn. It will be known as Myer's Department Store. The buyer for the china and glass department is M. J. Rosenblatt.

England Brothers, of Pittsfield, Mass., have largely increased their china, glass and lamp department.

The R. H. Stevenson Company has opened a department store at West Newton, Pa. The capital stock is $16,000.

A new china and glass department is being installed in the B. White store, North Side, Pittsburg. Andrew Moser will have charge.

A large part of the basement of the Emporium department store in San Francisco has been opened for special sales of the various departments. Goods will here be disposed of at prices lower than ordinarily. The innovation will undoubtedly be made a permanent feature of the store.

Albert Pick & Company of Chicago are distributing a new catalogue.

S. S. Kreske & Company have erected a three-story building in New Haven, Conn., and will open another five-and-ten-cent store.

The Citizens Five, Ten and Twenty-five Cent Stores Company, which was soon to have opened a store in Cleveland, O., has filed a voluntary petition in bankruptcy. The company was organized in April with a capital of $1,000,000.

OBITUARY

Walter Hubbard, one of the organizers of the Bradley & Hubbard Manufacturing Company of Meriden, Conn., died suddenly in that city August 24th, aged eighty-three years. Mr. Hubbard had always been a native of Connecticut, having been born in Middletown in 1828. His first position was as a clerk in a Meriden store. In 1851 he opened a dry goods and clothing store, which business was continued until 1860. The Bradley & Hubbard Company started business in 1854. In addition to his prominence as a manufacturer, Mr. Hubbard was well known as a citizen and philanthropist. Hubbard Park in Meriden was his gift to the city, and Winthrop Hotel also stands as a monument to his efforts.

Adolphe Paroutaud, formerly of the firm of Paroutaud & Watson, 37 Murray Street, N. Y., died in Limoges, France, August 21st, aged 39 years. Mr. Paroutaud was born in Limoges and came to New York in 1892. He became connected in 1898 with the American agency of J. Pouyat. In 1898 with a fellow employee, he formed the firm of Paroutaud & Watson and took over the representation, locating at 37 Murray Street. In 1909 the firm dissolved and Mr. Paroutaud returned to France.

A Window on Lower Sixth Avenue

The Show Window

The Importance of Background—The Most Satisfactory System of Lighting—The Relation of Window and Interior Decoration—Window Display and Newspaper Advertising—Dont's for the Decorator

IN a previous article on window decoration, general observations were made regarding the importance of proper display as applied to the every-day merchant. It is the purpose of the present article to treat these principles more at length—from the viewpoint of successful decorators and authorities on the subject—and to add further suggestions for the consideration of the reader.

It has been said that the show window is the peephole through which the public looks into an establishment. Not infrequently a business is judged by the window showing. Many people underestimate the value of the window. The story is told of a New York jeweler who pays $5,000 monthly for a Broadway store no larger than a hencoop. Hundreds of thousands of people pass this little place every day. The $5,000 is for location—not for floor space, and the occupant estimates that four-fifths of the rent paid is for the window. Is your window paying four-fifths of the rent?

In arranging a window, a good background is of first necessity, since it is the setting of the picture you wish to present. Many articles, desirable in themselves, need a background to bring them out effectively. Practical window trimmers devote no little time to the arrangement of backgrounds, often relying entirely upon them to arrest the notice of the passer-by and to bring to his attention the goods themselves. No matter how artistic a window display may be, it loses more than half its attractiveness if not suitably backed. The background affords relief to the trim and is as necessary as scenery to a stage setting or as the sky to a landscape. It completes the picture and frequently attracts the eye sooner than the goods themselves. Of late, the stock background of hard wood or mirrored glass has been adopted by

many merchants. The stock background is useful if certain goods are always to be displayed before it, but not when the goods are of a miscellaneous nature. Different goods require different backgrounds, as different pictures require different frames. It is a great mistake, however, to make the background so very effective that it distracts attention from the goods displayed.

Lighting is another important consideration in window decoration. The most satisfactory system of lighting for windows is to place the lights at the top next to the window pane, so arranged as to cast the light downward and backward from the object. Thus the entire window space is fully illuminated and the lamps are themselves hidden from view. Separate reflectors or a long reflecting trough should be placed back of the lights.

The relation of window and interior decoration should never be forgotten. The one should harmonize with the other. If window displays attract a person to a store, it takes a well arranged stock to do the rest. No one would think of displaying hardware in the window if china were to be sold in the store. A window displaying a well arranged collection of beautiful china, requires that the china department shall be as well arranged and contain a similar line of goods. Win a possible customer by an attractive window and show him a disordered stock—dusty, soiled, cluttered and incomplete—and you have lost him forever. It is then beyond the power of the window display to attract him to your store. A window occasionally decorated to represent a dining room, with a soup service on a table as in actual use, and with wine glasses and other accessories by the plates, has a better selling effect than a service piled up in a group under a price ticket. In a few days a tea service is similarly set out, and later on a neat but inexpensive dessert service takes its place. A pedestal and vase and a few smaller flower vases are added, with natural flowers. If these interest people in the street, is it not of importance that the interest be maintained when they are in the store?

A Well Balanced Fifth Avenue Window

Tie up your window display with your newspaper advertising. Both are used for the same purpose, both are intended to bring results. It seems undesirable to have a window display made up of freak propositions which have no direct bearing upon what the merchant is trying to impress upon the public. Prominent advertisers, interested in the production or selling of more than one article, believe that the value of an advertisement is depreciated where more than one article is displayed at a time in the same space, since the mind of the observer is not concentrated and, therefore, not influenced, by the advertise-

ment or window display showing many wares, as by the advertisement or display picturing and describing but one thing. As much is to be gained through concentration of effort in copy or display, how much more is possible when the united effort of both is concentrated toward a single end. The possible customer for it. It is too important to be slighted. Don't forget that the keynote of a good display is simplicity. Don't overcrowd your window. Don't overlook the seasonableness of all displays. Don't have one of your clerks in front of your store washing windows or sweeping the walk after business has started. Don't

A Well Arranged Fifth Avenue Window

—the whole public is made up of possible customers—has perhaps seen a newspaper advertisement of a certain sale. Later, passing the window, he is reminded of what he read and invariably stops. The sale is then half made. Your show window and your ads are your salesmen; they create the consumer's interest and show him what you have to sell.

The following *dont's,* recently published in booklet form, may be of interest: Don't ever dress the window for any purpose other than as a means of advertising your goods. Don't stick to one style of trimming; branch out; variety is the spice of life. Don't depend too much on fixtures. Don't wait until Saturday to wash your windows. Don't let your window displays get dusty and stale. Don't forget that dirty windows shut out trade as well as light. Don't put in freak displays that have no connection with your business. Don't neglect to have neat, attractive show cards. Don't fear people will think you haven't the stock just because it is not all in the window. Don't allow your window display to shut off the view of the inside of the store. Don't turn the window trimming over to the youngest clerk—unless he shows aptitude show many different kinds of goods at once. Don't spoil your window display by hanging up show bills or other advertising not concerned with your business.

Let people judge your wares by your windows! Attractive windows are business holders.

An Ever Changing Window on Twenty-Eighth Street

Appalachian Exposition

GLASS sands, potters clays, kaolin and similar natural products will be a feature of the Appalachian Exposition, which is to be held at Knoxville, Tenn., from September 11-30, 1911. Tennessee has some remarkable deposits of glass sands, and the Appalachian region has splendid deposits of crystal quartz and other glass making materials. These will be exhibited at the exposition. It is claimed that in Tennessee approximately one million acres of glass sand exist in what is practically one deposit, generally about forty feet thick, and analysis showed that it is about ninety-eight per cent. silica. There is another deposit that runs for a number of miles that is nearly as good. The Tennessee River contains large deposits of water washed sand, from which in the past excellent glass has been made. All will be on exhibition.

Pencilings of Potteries

ANN ARBOR, Mich.—The work shop and molds of the Markham art pottery were destroyed by fire August 23. An overheated oil stove was the cause of the conflagration. Several thousand dollars' worth of pottery was ruined, and machinery and tools, the accumulation of seven years, destroyed. The Markham pottery is known all over the country and abroad. It comes in the peculiar soft dull tints seen in autumn leaves and is covered with a tracery that looks like the skeleton of those same leaves.

Benton, Ark.—A pottery company has been formed in this city with a capital of $10,000. E. R. Norton is at the head of the enterprise, associated with J. M. Caldwell and F. C. Bush.

Crooksville, O.—An additional kiln and new machinery will be installed in the plant of the John G. Burley Pottery Company at an early date.

Du Bois, Pa.—Application has been made for a charter for the Bohemian Art Pottery Company by L. A. Fischel, H. H. Cannon and Frank Gahne.

East Liverpool, O.—The Oliver China Company, of Sebring, O., will hereafter be known as the E. H. Sebring Pottery Company.

Jacksonville, Fla.—A charter was granted to the Southern Art China Company on August 23. The new firm has a paid up capital of $5,000, which will be increased to $10,000 in the near future and eventually to $20,000. All kinds of art work relating to china, semi-porcelain and glass will be carried on. A feature of work will be the manufacture of souvenirs and china ware, on which will be burned the names of prominent hotels.

Macon, Ga.—The entire plant of the Summit China Company, of Akron, Ohio, will be moved to this city, where it is proposed to put in operation one of the largest china manufacturing plants in the entire country. L. K. Force, F. H. Buerbach, R. H. Kent and W. H. Dettleback, the owners of the Summit China Company, have made ideal arrangements with the Chamber of Commerce at Macon, which body will supply a site and four walls, and the machinery will be moved from Akron to Macon. The company will be known in the future as the Macon China Company.

Marshalltown, Ia.—The plant of the Red Wing Stoneware Pottery Company has been purchased by persons who will add other ceramic products to the output, operating, it is said, with a capital of $300,000.

National City, Cal.—California is to have a modern domestic pottery, now that a firm known as the California China Company has been formed and will establish its plant in this city. It is announced that china and semi-porcelain ware will be the product of the new corporation.

Philadelphia, Pa.—When the new factory of the Yellow Rock Pottery Company, at Mercer and Clementine Streets, is completed, the firm will take up the manufacture of Rockingham and jet wares on a red body, similar to the English ware.

Ragland, Ala.—A pottery company is being formed here for the purpose of making ceramic art specialties. M. Bandas is at the head of the project.

Roseville, O.—The J. W. McCoy Pottery Company transacted during August the largest business in its history. This speaks well for the line of jardinières, vases and fancy pottery made by them, and shows that their products are constantly increasing in popularity.

Toronto, O.—The American China Company has discontinued operations, turning almost two hundred men out of employment. Suit was recently brought by the Commercial National Bank for money due on judgment notes. The liability of the company is placed at $120,000. W. B. Gincher has been appointed receiver.

Trenton, N. J.—The Mercer Pottery Company is putting on a new plain shape known as the *Olympic*. It is made in a variety of patterns, the prettiest of which are in simple floral and conventional border decorations and in white and gold. The Mercer Company keeps a substantial stock of each of its lines and is ready to fill all orders at short notice.

Trenton, N. J.—The New Jersey China Pottery Company is paying particular attention to its line of Willets' Belleek. This is a beautiful ivory tinted ware, admirably adapted to the needs of the china painter. It has a smooth, rich, translucent glaze, affording a remarkably clear surface unequaled for decorating. The velvety appearance of the china is delightful to the artist whose work is of a very fine or delicate character, the superb finish of the china adding greatly to the artistic worth of the decorators' effort. The line is made in over eight hundred designs.

Lamps, Lighting Fixtures, Shades and Art Metal

THE recent exhibit of *Vase-Kraft* at the National Household Show has done much to advance and increase the interest caused by its first appearance in New York last spring. POTTERY & GLASS was the first to herald its advent, and at that time a thorough description of a work in glazes covering a greater scope than has ever before been attempted, was given in these columns. Since then Vase-Kraft has gone from the Atlantic to the Pacific, and has always found the same enthusiastic welcome among lovers of home and the beautiful. Less than a year old, Vase-Kraft is a well-established fact. The frequent appearance of something new in beautiful tints and colors, rivaling even those of Nature, augurs that Vase-Kraft is destined to occupy a foremost position among art potteries.

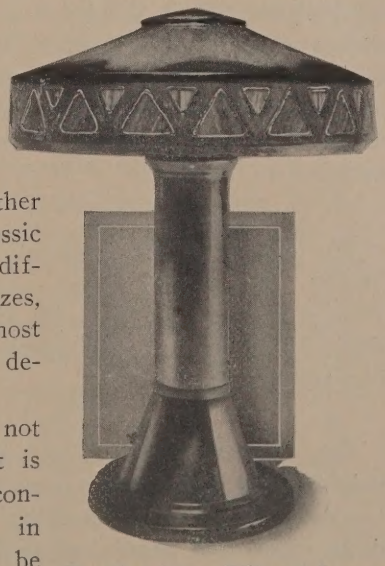
To quote from the already abundant sources of Vase-Kraft literature—Pieces of pottery without any glaze may be made by the skillful potter from clay, made plastic by proper addition of water and well-kneaded into a shape turned free hand on the swift revolving potter's wheel. A piece of this pottery may have as beautiful lines and curves as is possible to make; without a glaze it lacks the finish of completeness, like a solid picture without a frame. If this piece of pottery were covered with paint, no matter of what color or colors and no matter how painted, its charm as a shaped piece would be lost. Artificial covering such as paint without fire or China colors with low fire may be wonderful work; it is, however, foreign to the pottery it covers and is wonderful only as far as the workmanship in painting goes. This same application of paint or China colors can be applied to a piece of clay, stone, cement, metal or even wood, but can only detract from its original beauty of design.

Smoke Stack Lamp—Vase-Kraft

If this same piece of pottery, made by the potter and after it has become "dried bone hard," be covered with any of the thousands of combinations of Vase-Kraft glazes and placed in the kiln and fired at high heat, so that the formed piece, as well as the glaze covering it, are matured in the same kiln, at the same heat, there results a harmoniously finished piece of pottery which no human cunning can imitate, either by skillful touch or blending of colors.

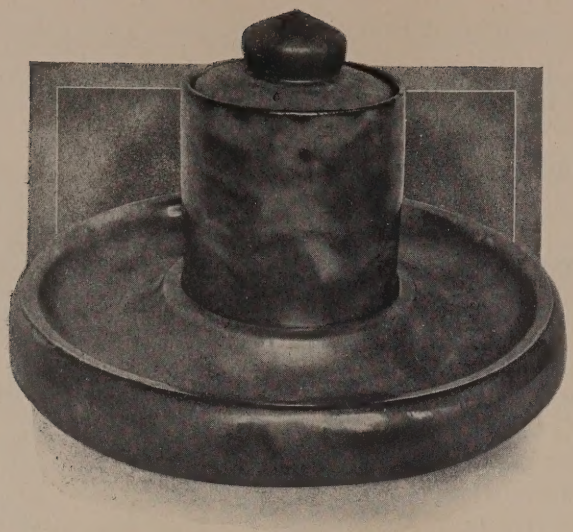
In addition to the intense heat built up slowly for days until the right temperature is reached, the quality of the fire or gases has to be carefully watched or handled. Some glazes require a clear fire with plenty of air to form complete combustion, but others demand a smoky kiln atmosphere, and still others an alteration of these fire qualities. After reaching the heat required, slow or fast cooling has its effect on glazes. When pottery has come through these processes, it is ready to be taken from the kiln.

Vase-Kraft lamps have been described as "lamps to live with," and so pleasing in appearance are they, in shape, glaze, color and general tone, that they readily lend themselves to the adornment of the home and become indispensable once they have been adapted thereto. Base, stem and shades are of pottery. All are equipped with the Fulper pin switch and two lights. The switch is just large enough to be found easily, but not large enough to suggest the use of electrical attachment. As one looks at Vase-Kraft lamps, he sees nothing but Vase-Kraft The shades contain inserts of leaded glass or crystals which diffuse a soft, mellow light. The use of these inserts, together with a variety of classic shapes and a wide differentiation of glazes, permits of an almost endless treatment of design.



Slanting base, Pillared Lamp —Vase-Kraft

But Vase-Kraft is not limited to lamps; it is possible in every conceivable medium in which pottery may be used for the adornment



Vase-Kraft for Men

of the home. There are pretty, conventional Vase-Kraft jardinières and vases; blossom cups and bowls; Vase-Kraft for cut flowers, Vase-Kraft for men, Vase-Kraft for tobacco, Vase-Kraft for roses.

Were one to consider the decoration of a home, he has the Vase-Kraft lamp, appropriate for use with Mission furniture, and even the furniture may be set with Vase-Kraft tiles. There are Vase-Kraft tiles for the mantel, artistic Vase-Kraft for the shelf, Vase-Kraft smoking sets, Vase-Kraft for the desk—Vase-Kraft for the home.

The exhibit of the Weintraub Brass Manufacturing Company, 25 Bleecker Street, was the first to be seen on entering the garden. Both because of location and the beauty of the goods shown, it was one of the most effective and striking there. The lamps shown were of sawed brass, lined with yellow silk. The pedestals are of the same material and, like the shades, contain electric bulbs. A soft yellow light is emitted.

The Continental Art Glass and Brass Company, 22-26 Howard Street, displayed a line of leaded glass domes and portables, in floral, fruit and conventional designs. A five light shower, with square yellow glass shades, each panel of which contained a glass insert of another color, was attractively suspended over the entrance to the booth.

The exhibit of the Imperial Art Glass and Lamp Works, 26 Sullivan Street, consisted of a line of Persian filigree underlaid with art glass and with borders of bead fringe. The samples were in both portables and domes.

The Stillman Safety Lamp Company were close neighbors of POTTERY & GLASS, with a line of about twenty-five numbers, consisting of reading, bracket, desk, night, and candle safety lamps, and a line of safety lanterns.

Max Austrich, 1133 Broadway, exhibited the A-1 Arc Lamp. This gives a perfect light, showing colors in their natural appearance. They are particularly appropriate for use in connection with the display of silks and fabrics, where the distinguishment of color is necessary. A line of portable lamps with leaded shades underlaid with art glass and several brass portables are also manufactured. There is a line of imported reading, table, parlor, bedroom, piano and desk lamps.

George N. Blust, 82 West Broadway, representing the Pittsburg Lamp, Brass and Glass Company, has just received and placed on display the largest line of samples showing new goods ever shipped into this city at one time. These consist of many numbers in gas and electric ceiling lights, domes, gas and electric portables, and piano and desk lamps. There is also a new line of oil lamps for parlor, hall or library use. The line is too extensive to give a descriptive writing at this time. The new bonnet lamps, for oil, gas or electricity, mentioned in a previous issue, have proven winners for the trade.

A new cut glass portable electrolier, said to be the largest of its kind ever made, is being shown by J. D. Bergen & Company at 36 Murray Street. There are four pendant lights and one upright. The piece is thirty inches high and twenty-two inches wide. It is silver mounted and each arm is decorated with twelve prisms.

John Morgan & Sons, 61 East Ninth Street, have issued a well illustrated catalogue of their latest designs in portables, domes, showers and lighting fixtures. There are many brand new effects in *Modern Stained Glass* (patented) shown, and buyers should see the book and inspect the line before making their selections.

Pear Shaped Bowl—Vase-Kraft

Glimpses of Glass Houses

Being a Page of Short Notes of Business Affairs in the Different Factories

ASHEVILLE, Tenn.—According to a Knoxville daily, it is probable that a cut-glass factory may be located in this city. Manufacturers from Moundsville, W. Va., are said to be interested.

Baltimore, Md.—The Canton Manufacturing Company, manufacturers of decorated glassware, have opened a second factory in this city, which will be operated in connection with the main plant in Canton, Md.

Corning, N. Y.—The recently organized Climax Glass Company has leased the shop formerly occupied by the Knickerbocker Cut Glass Company and have opened an establishment, operating twenty frames.

Elmira, N. Y.—The Elmira Glass Cutting Company, controlled by Attorney Benjamin F. Levy and Joey E. Ferris, of Elmira, is to discontinue the use of its present building in Corning and to remove to Elmira the building formerly occupied by the Ferris Cut Glass Company in the same city, and erect it on a lot there for use as a factory. The Corning building will accommodate forty frames, the present building of the Elmira company being considerably larger.

Lawrenceville, Pa.—Stage Brothers are building an addition to their cut glass factory and will put on an additional force of men.

Moundsville, W. Va.—The Mound City Cut Glass Works have awarded a contract for the construction of a 30 by 80 addition to the frame room.

Pittsburg, Pa.—Referee in bankruptcy Wm. R. Blair recently handed down an opinion in the case brought against the defunct New Method Art Glass Company by Emily Brown and the Brown Manufacturing Company. The petition sought the return of property, which it was alleged the New Method Company took over by fraudulent representations. Referee Blair declared that no evidence was presented to show any fraud, and that the petition should be dismissed. According to a statement by the attorney in charge of the case for the plaintiff there will be but little money with which to pay off claims, the firm's financial difficulties being blamed to insufficient working capital.

Pittsburg, Pa.—At the annual meeting of the stockholders of the United States Glass Company, held late in August, the following directors were elected: J. A. Knox, Ernest Nickel, W. A. Anderson, J. B. Barbour, M. G. Bryce, C. J. Kappler, William Munhall, David Yost and L. Z. Birmingham. The annual statement of the firm shows profits of $114,716. The annual increased production of glass amounted to 5,264,266 pounds.

Pittsburg, Pa.—Numerous reservations have already been made for the January pottery and glass exposition.

Rochester, Pa.—Furnace No. 3, of the Rochester Tumbler Company's plant, has been razed and is being replaced by a twenty-ring continuous tank, which will probably be placed in operation during October. A power press has been added to the factory equipment.

Zuckmantel, Bohemia.—On the night of August 8 fire completely destroyed the big glass plant of Joseph Inwald, at Zuckmantel, near Teplitz, Bohemia, causing an estimated loss of about 10,000,000 crowns. The conflagration started in the straw shed.

Glass in the Philippine Islands

The Quarterly Summary of Commerce of the Philippines, for January-March, 1911, issued at Washington, shows that during nine months ending with last March glass and glassware to the value of $227,124 was purchased by the islanders, the amount invested for this product during the corresponding period ending with March, 1910, having been $152,321. The Philippines draw their supply from nearly all of the glass making countries of the world, Germany's contribution during nine months ending with March, 1911, being valued at $62,787; the United States was enriched to the extent of $46,999, while the contribution from Belgium was valued at $24,837, and that of Japan $45,828, the only other country participating to an extent worth mentioning being the United Kingdom, whose sales in the Philippines amounted to $11,707.

Dean Decorated China

Jesse Dean, 76-78 Carrol Street, Trenton, N. J., makes a specialty of open-stock patterns on G. D. A. china, decorated with durable coin gold. There are incrusted gold borders of every kind—fine line borders, narrow borders with laurel or vine treatment, and heavier borders in which the decoration covers the entire rim. High-class monogram and crest work is another product of the Trenton factory. Each design is carefully sketched by an artist for that purpose. In fancy lines are vases and flower holders in matt base colors of green and red with heavy gold deposits. One piece is entirely covered with dull gold over which is a deposit of polished gold.

POTTERY AND GLASS

WITH WHICH IS COMBINED

GLASS AND POTTERY WORLD

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CHINA, GLASS AND POTTERY REVIEW, Founded 1897.
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DEVOTED TO THE INTERESTS OF THE POTTERY, GLASS, LAMP, ART METAL AND ALLIED INDUSTRIES.

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Confidence as a Requisite in Salesmanship

TO be successful, a salesman must have confidence in himself, in the goods he sells and in the house he represents. If a man lacks confidence in his ability to properly fulfill the work he is called upon to do, he can never hope to accomplish much, and might better seek other pastures. On the other hand if he believes in his power to clearly represent his goods and to convince men of their value, there is no obstacle which he cannot overcome, no difficulty which he cannot surmount. He must also believe in the goods he is selling. No one should carry a line for which it is necessary to apologize and which he can dispose of only by misrepresentation or by attacking the merits of competing lines. Select a line worthy of your efforts in its behalf and then sell it. The same is true of the man who lacks confidence in the house he is representing, for then he surely cannot hope to give them the best of his ability. Whether a man be a peddler, a fishmonger, or a ruler of men, he owes to his occupation an undivided and an unstinted loyalty and he who withholds it is a traitor to his business. Be able to stand up and say, "I believe in the goods I am selling, in the firm I am working for and in my ability to get results."

Advertisements

ADVERTISEMENTS are not put into a magazine so that the advertiser may read his own advertisement, nor does the advertiser insert the matter just for the fun of it. It is placed in the magazine for two purposes: First, that the advertiser may display his wares; second, that those in the industry who may be seeking certain appliances will know where to find them when wanted.

The advertising section of a magazine is just as important to the reader as to the advertiser. The reader who does not read through the advertising section and take in what is there shown, is most likely to overlook the existence of some device, that if handled in his business would be a money-maker.

The man who says he is *too busy* to look over a magazine is not the man to be in the employ of any first-class, up-to-date business house; in other words, he is the man with his nose to the grindstone; he is the man with near-sighted glasses rather than far-sighted ones.

We are sorry for the man who says he never took a vacation, and we are sorry for the man who has no time to look through the magazine in his field that contains the most matter pertinent to his business and to the developing of his personal business interests and the business interest of those who have put him in a position of trust.—Exchange.

The Limoges China Investigation

CONSIDERABLE uneasiness exists among New York importers of Limoges chinaware regarding the investigation now being conducted at the French pottery center by a commission appointed by the Treasury Department, headed by E. R. Wakefield, of the Assistant Attorney-General's Office—according to the *New York Commercial.*

For several years the American Government has instructed customs representatives to accept as correct market values the prices indorsed by the Liverpool Chamber of Commerce. Domestic potters, however, became dissatisfied with the values returned by the French chamber, and made strong representations to the Secretary of the Treasury. The United States Potters' Association made the plea that goods were coming into this country at undervaluation rates, and asked that the existing arrangement be abrogated. This claim led the Treasury Department to send a commission abroad to delve into cost of production and other details at the French factories.

The determination to send a commission to France was arrived at on short notice. Importers and foreign manufacturers had no inkling of the plan, until the commission had sailed. Thereupon the importers sent B. A. Levett to Europe to look after their interests. It was said recently that while the Limoges manufacturers have accorded the commission every courtesy and opened some of their books for inspection, certain important data have been withheld. From what was learned then, it appears improbable that the French makers will give up all of the information at their command.

For many years the Limoges manufacturers had a practical monopoly of the American trade, but within a comparatively short space of time the domestic makers have become formidable rivals for this market. It is claimed by the United States Potters' Association that if undervaluations and evasions of the tariff laws are stopped, the American makers can supply the trade here to the extent of at least eighty per cent.

William Burgess, chairman of the association's special customs committee, returned from Europe recently. He has spent two months investigating conditions at Limoges. The data he has gathered will be utilized by the association, while certain facts will be placed before the authorities at Washington. Mr. Burgess declined to make any statement regarding the results of his investigation on the ground that nothing should be said pending the completion of the commission's inquiry and report.

An Art Pottery School for Bombay

Art pottery at one time was a flourishing industry in India and Persia. It is interesting to find that efforts are now on foot at the Bombay School of Art to revive the industry. At present, a Government chemist is experimenting with the aid of small gas kilns, and as soon as satisfactory results are obtained pupils will be found with no difficulty. Already the sanguine people see a light drift towards the industries in the Indian student, and if, after a preliminary course of science, a number of the more wealthy students turn their attention to this manufacture, a great industry may result.

Ancient Korean Pottery Shown

A collection of ancient Korean pottery over which collectors have lately become so enthusiastic and which it is now almost impossible to take out of Korea because of the value placed upon it by Chinese, has been on exhibition in a prominent Boston store. The largest piece is a slender-necked vase with incised decoration, and several pieces show the ornament in white. The color varies from pale blue to olive green. Some cup stands are particularly attractive with fluting and a spray of flowers in white on each lobe of the saucer. A very delicate rice bowl has incised wave lines and fish in pairs.

Ancient Kiln Found

A pottery kiln, of unknown age, has been discovered on a farm north of Pomona, Kan. The kiln was found when the men plowing in the field turned up a number of pieces of pottery. No pottery of value has been exhumed, most of the finds being small pieces, such as bowls and jars. The old kiln is thought to date far back of the time when the Sac and Fox Indians roamed over the ground. The earliest settlers who filed into that neighborhood when the land was first opened, remember no kiln among the Indians there, which gives rise to the belief that it was used by some people of an earlier age.

Depositing Copper on Glass

The Brass World tells of a new method of depositing copper on glass which has recently been discovered by an English investigator. A mixture of one part of freshly distilled phenyl hydrazine and two parts of water is heated until the solution is clear. A warm solution of cupric hydroxide in ammonia is then added (made by precipitating sulphate of copper by potash, washing and dissolving in ammonia). The cupric hydroxide is reduced to cuprous hydroxide with evolution of nitrogen gas. A hot ten per cent. solution of caustic potash is then added until a slight precipitation of cuprous hydroxide takes place. If the solution in this condition is brought in contact with a clean glass surface, a bright deposit of copper forms on it. This is thin and perfectly reflecting.

Membership in the Flint Union

The total membership on June 1, 1911, in the American Flint Glass Workers' Union was 9,251—7,893 employed and 1,358 unemployed, or eighty-five per cent. employed and fifteen per cent. unemployed. The unemployed figures include the men engaged in strikes and lockouts, which, of course, assists in running the figures as high as reported. One year ago Secretary Clarke reported 8,901 for a total membership, 7,456 employed and 1,445 unemployed, or eighty-four per cent. employed and sixteen per cent. unemployed. It will be noted by this that membership has gradually increased and that the number employed this season is greater than the number one year ago.

Operative Potters Elect President

Edward Menge, formerly secretary and treasurer of the National Brotherhood of Operative Potters, was recently chosen president of that organization, to succeed T. J. Duffy, recently elected to the office, but who resigned in order to accept a membership on the State Liability Board. President Duffy had served for nine years, and was named a few days ago as a member of the Liability Board by Gov. Judson Harmon. John T. Wood, who has been seventh vice-president of the organization for several years, was elected by the executive board, secretary and treasurer, to succeed President Menge. Frank Gratton was chosen to succeed Mr. Wood.

Colonel Falsom was reading the morning paper, when he exclaimed:

"What a terrible misfortune!"

"What is it—somebody got married?" his wife asked.

"No, but a married woman in a fit of rage threw a coffee cup at her husband. The cup was shivered into fragments, and, one of them cutting his jugular vein, he died on the spot. The reporter says the grief of the unfortunate woman was dreadful to witness. She was frantic with remorse, and made several attemps to end her life."

"Poor creature!" said Mrs. Falsom. "The broken cup must have belonged to her new china set."

The illustrations accompanying the article "The Home of Sevres Porcelain" are used through the courtesy of Frederick Loeser & Company, and were made from pieces in stock in their store.

Personal Notes

F. H. GALLAGHER, of the Sterling Glass Company, Cincinnati, O., has been in New York City, in the interest of the Western trade. While here he made his quarters at 76 Park Place.

C. L. Gray, who for eighteen years has been general office manager for the Goodwin Pottery Company of East Liverpool, O., resigned September 1st to accept a similar position with the Charles Howell Cook pottery in Kittaning, Pa.

Charles Weiss, with Wm. Guerin & Company, 33 Park Place, New York City, returned from Europe on the *Amsterdam,* August 21st.

Walter Minnemeyer has been made sales manager, not general manager, of the Dugan Glass Company of Indiana, Pa.

K. L. Wedgwood, 25 West Broadway, New York City returned from Europe on the *Adriatic* September 2d.

William Dougherty, of the Consolidated Lamp and Glass Company, 66 West Broadway, has been in Toronto on a business trip.

J. H. Venon, 45 West Fourth Street, New York City, returned from Europe on the *Provence* September 1st.

H. M. Hollander, formerly of the H. M. Hollander Company, Holyoke, Mass., was a recent visitor in New York.

George Vernon, formerly with the West End Pottery Company of East Liverpool, O., has become associated with the sales department of the National China Company at Salineville, O.

Zed Smith will hereafter have charge of the Eastern territory for the D. E. McNicol Pottery Company of East Liverpool, O.

John J. Miller, of Maddock & Miller, 53 Barclay Street, New York City, returned from Europe on the *Caronia* August 28th. He was accompanied by his son.

C. B. Rowe, vice-president of the Fostoria Glass Company, Moundsville, W. Va., was a recent visitor at the San Francisco office.

J. D. Dithridge, 25 West Broadway, New York City, returned recently from a vacation spent in Canada.

T. W. Rowe, president of the American Flint Glass Workers Union, is in Berlin, attending the International Congress of Glassworkers, as a representative of the American Flint Glass Workers Union.

John G. M. Carter, of Trenton, N. J., has been made general superintendent of the Pennsylvania China Company at Ford City, Pa.

C. H. McIntosh has been placed in charge of the plant of the Ohio China Company at East Palestine, O.

Walter J. Straub, of Bawo & Dotter, 26 Barclay Street, New York City, is on an extended trip through New England.

B. H. Lebenson, formerly with C. B. & J. Warner, 47 Warren Street, New York, has engaged with O. J. O'Donnell, 19 Park Place.

Charles Vogt, of Vogt & Dose, 43 Barclay Street, New York, arrived home Saturday after a summer spent in France.

E. Torlotting, 25 West Broadway, and J. H. Venon, 45 West Fourth Street, New York, returned from Europe on *La Provence,* September 1st.

F. Dohrmann, Jr., of the Nathan Dohrmann Company, San Francisco, is in Honolulu.

Louis Weil, of Kosherak Brothers, 31 Park Place, New York, is on a three months western trip.

C. H. Uberroth has given up the Chicago representation of the Limoges China Company to become connected with the Saxon China Company in Sebring, O.

Arthur F. Pohlmann has resigned as buyer for the Daniels & Fisher Stores Company of Denver, Colo.

Incorporations

The Spillman Brothers Company, of Martinsburg, W. Va. To operate department stores. Capital stock, $15,000.

The Berkeley Glass Sand Company, of Berkeley Springs, W. Va. To furnish glass sand and operate plant. Capital stock, $200,000.

The Climax Cut Glass Company, of Portland, Me. Capital stock, $10,000. Incorporators: J. F. Fannig, Robert Payson and A. C. Percy.

The Standard Engraving and Cut Glass Company, of Minneapolis, Minn. Capital stock, $250,000. A. R. Olson, D. D. Rider and C. J. Merrill are officers of the new firm.

The National Household Show

Arrangement and Decorations—Attendance and Results—Some of the Exhibitors

MUCH has already been said and written regarding the Second National Household Show in Madison Square Garden, August 19-26, and with but very few exceptions all has been of the most commendatory nature. From a broad viewpoint, the exposition was successful, but there were many possibilities for improvement.

However, floor space was well occupied and booths well arranged and decorated. Added to this, was a clever scheme of green and white decoration above the exhibits and along the balconies. Around booths was a neat white railing with corner posts and center pillars, which held large signs announcing the exhibits. Altogether the garden presented a pleasing appearance. The attendance was good, particularly on evenings during the latter part of the week. Buyers were numerous.

Exhibitors generally, were well satisfied with results, having met many prominent retailers and buyers, and having opened substantial new accounts in cities throughout the country. The benefit gained through publicity was also of value.

Haviland & Abbott, of 29 Barclay Street, exhibited a full line of Limoges china dinnerware, open stock patterns, and fancy goods. Dinnerware was prettily arranged on tables and fancy goods on shelves above them.

Albert R. Marryatt, 32 Park Place, had a pretty display of the Pioneer Cut Glass Company's goods, among which were the new floral patterns, which are attracting so much attention and which are fully described on another page.

William N. Warrin, 25 West Broadway, was kept unusually busy with his four lines, that of the West End Pottery Company, the McCoy Pottery Company, the Reed Glass Specialty Company, and the Pennsylvania Glass Company. For the former, he exhibited numerous dinnerware patterns and the new sanitary fruit jar funnel; for the second, a line of pottery vases, jardinieres, fern dishes and pedestals in matt green and imitation marble; and for the Reed Glass Specialty Company, a glass towel rod with nickel plated ends and brackets.

Thomas G. Jones, 25 West Broadway, displayed the lines of the McKee Glass Company and the Economy Tumbler Company. The exhibit was prettily arranged on tables and long shelves, with a black background. A full line of tumblers, stein ware, and pressed glass was shown.

The exhibit of L. Straus & Sons, 42 Warren Street, was generally admitted to be one of the most effective. The variety of goods displayed, admitted of artistic arrangement. This together with the location and a clever scheme of decoration, won the undivided approval of visitors. Among samples shown, were lines of cut glass, vases, stein ware, china ware, and fireproof cooking utensils.

Max Herbert, 26 Murray Street, displayed a line of the Bonita Art Company's gold decorated china sets and samples of other lines represented by him.

William R. Demorest, 46 Murray Street, showed the Colonial cuttings of the Westmoreland Specialty Company.

E. W. Hammond, 65 West Broadway, had the lines of the Niagara Cut Glass Company and Emil F. Kupfer, in conjunction with the Stewart and Crocker display.

Bates & Ledden, 65 West Broadway, were present with the popular Guernsey earthenware lines and those of the Buffalo Pottery Company.

In addition to their own Limoges chinaware line, Bawo & Dotter, 26 Barclay Street, showed some pretty Copeland dinnerware patterns, and a line of cooking utensils, one of lamps and another of toys.

The Utopian Silver Deposit and Novelty Company, 54 West Twenty-second Street, had a very effective display of silver deposit ware. Plates and the larger pieces were displayed on black cloth covered tables and vases and smaller pieces on shelves.

A. L. Tuska Sons & Company, 114 East Sixteenth Street, had an attractive display of Japanese goods. The line consisted of porcelains, vases, tea sets, fancy ware, bronzes, lanterns and novelties.

Abels & Company, 460 West Broadway, and Max Kaufman, 106 Broadway, Brooklyn, exhibited lines of easels and hangers for displaying china; and Bing Brothers, 381 Fourth Avenue, and F. A. O. Schwarz, 303 Fifth Avenue, toys and specialties.

Koscherak Brothers, 29 Barclay Street, had a full display of their new brass line and an extensive line of fern fillings and receptacles.

The lamp, brass, and art pottery displays are described in another section of this issue.

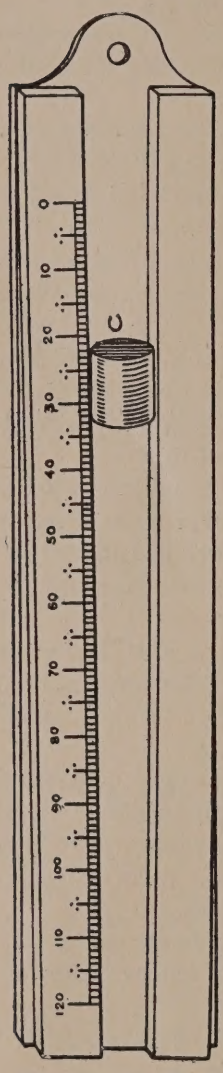
A report from an American consulate in Canada states that a large drug firm in his district has during the past few years imported its glass bottles from England, but owing to bad packing, which caused goods to arrive in a damaged condition, as well as excessive freight rates, American firms will be given an opportunity to compete for the orders. Communications relative to the class and grades of bottles desired should be sent direct to the firm whose address is given in the report.—7231.

Advertise with the tide. Take advantage of every turn in public sentiment. Why try to give the people medicine they don't care for? They're not children.

Industrial Pyrometry

The Service of the Pyrometer—Early Pyrometers and the Principles Involved—The Growth of Pyrometry as an Industry

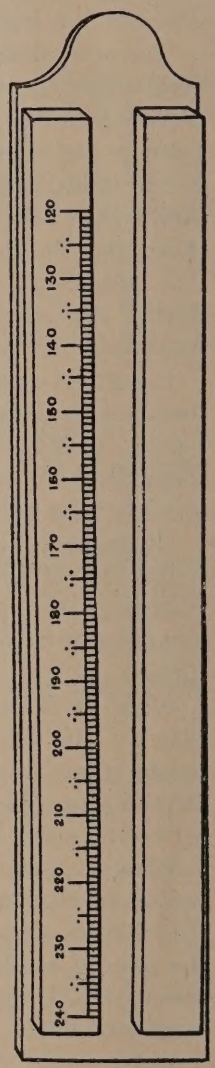
PYROMETRY, the science of temperature measurement, has been of inestimable service in the development of many industries, and among them is that of the manufacture of pottery. There is little doubt that the success of many prominent potters has been due to the correct measurement of working temperatures.



Wedgwood's Pyrometer—Upper Half

Although pyrometers have been in use for considerably more than a century, it is only during recent years that any great degree of perfection has been attained. The first effort to measure the heat of fires was made by Sir Isaac Newton in 1701 and consisted of only a bar of iron, the cooling time of which was compared with that of other substances. The first practical instrument was invented in 1782 by Josiah Wedgwood, the famous potter, and he was thereby enabled to control the temperature of his furnaces more accurately than ever before possible. The principle involved was that of the contraction of clay and the instrument consisted of a tapered gauge, a groove in which was wider at the top than at the bottom. Cylinders of a special clay, molded with a flat part to rest on the bottom of the groove, were prepared, and were made of such size that after drying, when placed in the groove, came to rest near the scale's zero mark. In order to test the condition of the furnace, one of the clay cylinders was introduced, and allowed to remain for a specified time; it was then removed, and, after cooling, inserted in the gauge, when the number opposite the forward end indicated the temperature in terms of Wedgwood's scale. Time has paid a tribute to the utility of this method, which for nearly a century held undisputed sway, and has not even yet been entirely supplanted.

Wedgwood later made an attempt to express the arbitrary degrees on his scale in terms of the accepted Fahrenheit degrees. These figures were generally accepted and tables were published early in the nineteenth century. Their accuracy was first challenged by Daniell, who in 1822 published an account of a pyrometer based on the expansion of a platinum rod encased in a plumbago tube. Both Wedgwood and Daniell used the mercury thermometer for the first stages of the calibration, and assumed that the relation obtained at low temperatures held far higher degrees on the scale. The necessity for some accurate standard of temperature, with which all pyrometers could be compared and brought into agreement, thus became manifest at an early stage in the development of the subject.



Wedgwood's Pyrometer—Lower Half

In 1822 Seebeck discovered that if a junction of two different metals, forming part of a closer circuit, be heated, a current of electricity is produced in the circuit. The free ends of the metals are connected to a galvanometer, the moving part of which is furnished with a mirror, from which a spot of light is reflected onto a scale. On placing the junction in a flame, the spot of light immediately moves along the scale, and it is noted that the distance moved increases as the junction becomes hotter. Becquerel, in 1826, proposed to apply this phenomenon to the measurement of high temperatures, but was unable to obtain concordant results.

Pyrometers based on the expansion of gas were first suggested by Prinsep in 1828; the calorimetric method, in which the temperature of a hot substance is determined by dropping it into a known quantity of water, and noting the rise in temperature produced in the water, was patented by Bystrom in 1862; the optical method, in which temperature is deduced from luminosity, was first applied by E. Becquerel in 1863; and the resistance method, based on the increased resistance offered by electricity by a metal when heated, originated with Siemans in 1871. All these methods are utilized at the present time.

Prior to 1886, however, pyrometers were little used in the industries, mainly for the reason that a sufficient degree of accuracy had not been attained in their indications to impress upon manufacturers the advantages to be derived from using them. The perfection

of the thermo-electric method by Le Chatelier in the year named, furnished a means of regulating high temperatures with great precision, the advantages of which were quickly recognized. Le Chatelier's pyrometer soon came into practical use in the steel industry. By its aid tests could be carried out at various temperatures, which could be reproduced with certainty, and new methods of heat treatment were thus discovered. Other industries were not slow to recognize the value of precise temperature control; and every year since 1886 has seen the continued extension of the use of pyrometers. Various new instruments have been invented and found a successful application, until at the present day the manufacture of pyrometers has become an important industry in itself.

A subsequent article will treat of the various pyrometers in use at the present time, their underlying principles and their special uses and limitations.—Editor.

Metal Working

A Brief History of Brass and Copper as Applied to Articles of Domestic Use and Ornament

By George C. Lynch

THAT the art of metal working has appealed to the people of all times is shown by the fact that it has been practised by the artificers of every nation and that it has always been one of the first arts to be developed and fostered.

Almost every metal, from iron and lead up to the more precious silver and gold, has been used at one time or another, and many causes have entered into the selection of the metal used. Sometimes it has been the abundance, sometimes the scarcity and consequent rarity of a metal, again it has been the special color which a certain metal supplied, and sometimes its resistance to atmospheric conditions. The most common requisites in a metal, however, have been its malleability and durability, combined with beauty and richness of color, and the ease with which it could be obtained.

The subject of "Metal Working" is alive with human interest, linked, as it is, with the growth of civilization; and showing, as it does, the development of skill and artistic feeling of each nation by which it has been practised. The subject, however, is altogether too broad to be taken up in brief, and the purpose of this article is only to trace lightly the history of metal working as applied to copper and its various alloys, as it has been used in interior decorating and in articles for domestic use.

Copper was one of the first metals discovered and used by mankind and it is mentioned, together with bronze, which is one of its alloys, in the most ancient manuscripts. So general was its use, indeed, at one distant period when arms, implements and ornaments of all kinds were made of it that the period was called "The Bronze Age." In museums and historical collections throughout the world are found metal objects belonging to this period and many of them are wonderfully beautiful, showing the utmost care and skill.

One of the most beautiful and useful of the copper alloys is brass, and although we read in the Bible about "A sounding Brass and a tinkling Cymbol," it was not in reality the yellow metal which we know as brass to which reference was made, but something which more nearly resembled bronze. It was by the Romans, who indeed spread the art of metal working over Europe that brass was first used. Since then the English have been foremost in the manufacture of this alloy, but it is made by and known to the metal workers of many nations.

Among the older peoples of whose copper, bronze and brass articles we still have many fine examples, may be mentioned the Egyptians, Saracens, Greeks and Romans, and we find that each nation stamped its individuality very strongly on the design. In later times the Japanese, Russians, East Indians, Germans and English may be mentioned as among the foremost in the use of the metal, and now America has joined the ranks of brass and copper working nations and is rapidly forging to the front. Although the art has been followed in this country for years, the majority of the workers have been of foreign birth, and each group of artisans has followed closely the practice of their native lands and has copied both the design, the articles and the methods of manufacturing employed there. This would have been all right had the same care and attention to details been observed, but time was money, labor and materials high and the demand of the inexperienced public great. The natural result inevitably followed and the country was flooded with an enormous overproduction of cheaply made, poorly finished and inartistic brass and copper, a large part of which was fraudulently claimed to be imported from abroad and which has been sold at prices prohibitive to first class workmanship.

Such a condition caused its own destruction and today one may pick up so called "Russian brass" at prices which hardly cover the cost of labor and material.

Another class of manufacturers, however, more far-sighted and with higher aims, has come to the front in the last two or three years. They saw what the inevitable end of this cheap, inartistic line would be and adopted a far different policy. Well run shops were organized, trained and artistic designers were employed and the utmost attention was given to detail and finish. In one case, even, repousse work has been undertaken with the same infinite care and artistic feeling and the results cannot be excelled anywhere in the world.

It will not be long before the change from old conditions will be felt and wise purchasers instead of buying cheap imitations of the really good work done abroad, will turn to the better designed, better executed and really beautiful pieces of brass and copper which are being made in their own country.

At the Hotels

GEORGE E. GAYLORD, of the Enterprise Cut Glass Co., Elmira, N. Y., has been at the Hotel Marlborough, showing a full line of that company's samples. The *rambler rose* pattern is still the most popular one, and a very large addition has been made in this pattern. Articles previously made in three shapes or cuttings are now made in ten. One of the most striking pieces being shown is a candelabra which can be converted into a vase set. The mounting is of silver.

The Warner-Keffer China Company of East Liverpool, O., showed at the Grand Hotel, August 19-26. Seventy-five dinnerware patterns on a semi-porcelain body, with borders of various conventional effects, were displayed. There were also examples of *Nagasaki* and *Canton* ware, in muffins, marmalade jars and tankards. The first is in floral and bird decoration of blended colors. *Canton* is a smaller design, of the willow order, in greens, browns and reds. The exhibit was in charge of Fred Kline.

The very latest accomplishment in cut glass sets for wedding or holiday gifts has been brought out by the Pioneer Cut Glass Company. Each set—salted almond, olive, celery and ice cream—consists of seven pieces, one large and six individual pieces. The sets are sold in silk-lined boxes. In addition to these, F. S. Scheissler recently exhibited at the Marlborough Hotel a line entirely new, both in quality and design and consisting of about forty-five specials. A distinctive feature of the Pioneer line is deep cutting and refraction of color. Several new vases in sizes from eight to fourteen inches were shown in the floral cutting. The border of another vase was in dull cutting, giving a richer effect than that of a simple scalloped edge.

W. F. Witherall, of the Edwin M. Knowles China Company, closed his exhibit at the Grand Hotel August 26th. Among the lines shown was the *Westover* pattern, which is still popular. The combination of colors used for German china character effects are excellent. The borders are in conventional and symmetrical designs in black, red, blue and brown with gold edges. The *Monticello* and *Mt. Vernon* shapes are selling well. In toilet ware, the *Monticedo* and *Franklin* shapes are most popular. The Knowles Company is making large preparations on new lines for the coming year.

During August the Taylor, Smith & Taylor Company exhibited their lines at the Grand Hotel—a reproduction of French china, scarcely distinguishable from the real. A Dutch lunch set was shown, consisting of a covered beer mug, sandwich tray, cheese tray, tumblers, and service plates. The borders are decorated with card subjects. A grill service, with plate divided in sections for meat and vegetables is the latest product of the firm. The service permits of serving a business man's lunch on one plate. W. C. Lynch was in charge of the display.

Arthur Shackleton, of the Climax Cut Glass Company, has been at the Herald Square Hotel with a line of cut lime glass blanks.

F. J. Classen has been at the Grand Hotel with the line of the Quaker City Cut Glass Company of Philadelphia, Pa.

Hugh Nevin has been representing Knowles, Taylor & Knowles at the Grand Hotel.

George Sylvia is at the Hotel Earlington with a line of cut glass and lamps with beautifully colored shades. Both are made by the Pairpont Corporation of New Bedford, Mass.

Other exhibitors at the Grand were J. P. Carling of the Pope-Gosser China Company; A. H. Hays, of the Cook Pottery Company; A. L. Blackmer, of the Blackmer Cut Glass Company; and J. M. Uniack, of the Hunt Cut Glass Company.

China Industry of Bohemia

ONE of the most important and flourishing industries of western Bohemia is the manufacture of chinaware. There are forty-seven factories located in this consular district, with an army of workmen numbering fifteen thousand. They range in importance from the small concern, with a payroll of thirty persons, to the largest porcelain factory in Austria, with fifteen hundred employees and an equipment of the most modern machinery. American painting machines operated by compressed air are installed in many of the factories, but the electric motors are mostly of English make. As not all the concerns have installed jiggers operated by power, there seems still to be an open market for motors.

A large percentage of Bohemian porcelain is exported. Great Britain is the largest purchaser and the United States is second, taking about thirteen per cent. of the yearly output valued at $3,129,945. The exports of white and decorated china from Austria last year amounted to $3,118,798. The exports of white china were valued at $419,747 and the decorated at $2,699,051.

There is a wide range in the quality of the chinaware manufactured in western Bohemia. One factory, which is visited annually by hundreds of Americans, produces exclusively hand-decorated ware of a high grade, which is sold to persons of wealth. Many table sets for royalty have been made there. This concern educates and trains its apprentices for decorators, giving them a special course in art at Vienna.

By far the largest part of the output of these forty-seven factories is a cheaper grade ware, with decalcomania (transfer) decorations. The designs are engraved and printed in the various establishments. One source of many orders is the demand for summer resort souvenirs in Great Britain. Thousands of these are exported annually at various prices.

Practical Science Department

Edited by Prof. Charles F. Binns

Raw Lead Glazes—Continued—By Ross C. Purdy of the Department of Ceramic Engineering of the Ohio State University

(*A*) Oxygen Ratio.

BINNS and Fickes have clearly shown the workable limits in oxygen ratio for glossy lead glazes, and Binns, Orton and others have demonstrated that for raw lead matt glazes, the lower limit may extend as low as 1.5 equivalent.

The only value we can see in the oxygen ratio idea, so far as it applies to glazes, is the convenience of expressing in definite numerical terms, what experience has shown to be the workable ratio of SiO_2 to the bases. There is absolutely no chemical or mineralogical significance to be attached to this oxygen ratio in glazes. If we should melt most raw lead glaze mixtures before applying them to a body, we would find that to secure a glossiness and general working properties equal to those obtained from the raw materials without previous fritting, we would have to increase the SiO_2 content. True, the fritted mixture would fuse with less heat, but it would not be as perfect a glass. We note that the oxygen ratio of fritted glazes (whether or not the B_2O_3 be considered as a base) is generally higher than that for raw lead glazes. (See Furnival's Leadless Glazes).

There is no particular value to be gained at this time from a discussion as to the probable reason why the oxygen ratio of 2 is best for glossy raw lead glazes and why, if twice melted, more SiO_2 can, and in many cases must, be present, for as yet our knowledge of the constitution of these glazes is practically nil. Some work on the constitution of lead glazes has been done by Cobb and others in the purely ceramic field and some that we may apply, but done by geochemical investigators. The researches by ceramists are in part as follows:

(1) Contribution to Knowledge of Lead Glazes, by Eisenlohr, Sprechsaal 43, 389. Chem. Abs., Amer. Chem. Soc., Jan. 10, 1911, page 170.

(2) The Formation of Silicates, Glasses and Glazes, by Cobb, Proc. Chem. Soc. 25, 165.

(3) The Synthesis of a Glaze, Glass and Other Complex Silicates, by J. W. Cobb.

Pour. Soc. Chem. Ind., 29, 69-74
" " " " 29, 250-259
" " " " 29, 635-636
" " " " 29, 399-404
" " " " 29, 608-614

(4) Fine Bunslau Stoneware, by Dr. W. Pukall.

Sprechsaal 43, 1-4
" 43, 17-20
" 43, 33-36
" 43, 47-50

See Chem. Abs., May 20, 1910, p. 1354.

(5) Contribution to Knowledge of Glazes Free from Lead, by Dr. H. Eisenlohr.

Sprechsaal 43, 151-155.

See Chem. Abs., May 20, 1910, p. 1355.

(6) Plumbiferous Glazes and their Behavior with Acids, by Beck, Loewe and Stegmüller.

Jour. Soc. Chem. Ind. 29-353.

(7) The Softening Temperatures of Lead-Silica Glasses, by J. W. Mellor, A. Latimer, and A. D. Holdcroft. Trans. Eng. Cer. Soc., Vol. 9, p. 126.

(8) A Method of Determining Melting Point of Glaze and Glass Silicates of Porcelain Types, by Barrett. Vol. XI, Trans. A. C. S., page 80.

(b) *Aluminum Content.*

It is very difficult indeed to discuss the limits of Al_2O_3 content without involving the question of variations due to differences in its source, i. e., whether from feldspar, clay, oxide, etc. In raw lead glazes, which usually contain from 0.10 to 0.25 equiv. of feldspar, we can say that the Al_2O_3 may vary from 0.10 to 0.35, depending, of course, upon the source of the Al_2O_3, the RO combination, and the acid content.

We dissent from the view entertained by Seger (*1*) that Al_2O_3 cannot be regarded as a "flux." Prof. Orton (*4*) and Purdy (*5*) have shown that considerable Al_2O_3 may be present in glasses and glazes without causing refractoriness and, in the case of Bristol glazes, is actually needed to obtain maximum fusibility. According to Frink (*6*) it makes an easier working glass.

Al_2O_3 may play the dual rôle of acid and base, but if so, its service as an acid is very slight indeed. If added from cryolite, it is doubtful if the Al_2O_3 has much of an effort on the glaze, for the fluorides are very slowly decomposed in silicate fusions, remaining as suspended material, as shown by the cloudiness thus produced. If added from clay it undoubtedly remains combined with the silica and some of the RO bases forming compounds, such as anorthite, etc. Of this, however, we know nothing except indirectly from the fact that spinels are very difficultly soluble in these fusions. If added from feldspar, it no doubt retains much the same combination as the original mineral. In short we doubt if aluminates are formed in transparent glossy glazes, and hence, if Al_2O_3 plays the rôle of an acid, it does so in the same degree as in feldspar and cryolite.

The introduction of Al_2O_3 into a glaze affords an opportunity or means to raise the melting point of a glaze, provided the Al_2O_3 in the original glaze already exceeds about 0.1 equiv.

The efficiency of Al_2O_3 in preventing devitrification is seen in Worcester's (7) work on crystalline glazes.

(c) *Lead Content.*

The lead content of raw lead glazes may be as high as 1.0 equiv. when the glaze is to be applied to soft biscuit and burned at about Cone 010. This high content of lead, however, is not advisable, for it is true, as Seger says (8): "It is not only the kind of (basic oxide) used which governs the fusibility of a glaze; the number of fluxes is also of importance. It has already been stated that, with the exception of lead oxide, which like the alkalies is able to form a transparent glass by itself (i. e., alone with SiO_2), at least two (basic oxides) must always be present to make a glass. The alkalies can, on this account, hardly be said to form glasses at all, because their compounds are all soluble, even the trisilicate. The oxides of the alkaline earths alone (i. e. alone with SiO_2) form no transparent glasses, but only strong or slag-like silicates. Therefore, in order to produce a transparent glass, it is necessary to have at least two (basic oxides) present, one of which is, as a rule, an alkali. And it is well known in practice, that the fluidity increases with the number of (basic oxides) present."

Factory practice has shown that in the best raw lead glazes, the practical limits of variation in lead content are 0.7 to 0.4 equiv., depending largely upon the maturing heat, and upon the desired amount of flowing of the glaze.

(d) *Calcium Content.*

The calcium content in raw lead glazes should not exceed 0.40 equiv. When too much calcium is present, we not only have a rather refractory glaze, but also one in which devitrification, cloudiness, and sulphuring are very apt to occur. The practical range in CaO content is from 0.1 to 0.3 equiv., 0.2 being about the average in practice.

(e) *Potassium and Sodium.*

Contrary to experiences in glass manufacture, we find that the alkalies may play a very insignificant rôle in raw lead glazes. In feldspar glazes the equivalent of K_2O may run as high as 0.30, but it seldom exceeds 0.15 equivalents. In Cornwallstone glazes it seldom exceeds 0.1 equivalent, and generally is as low as 0.05 equivalents.

The two principle reasons for the comparatively low content of the alkalies in raw lead glazes are:

(1) Because of the solubility in water of most of the alkali compounds we are restricted to the use of feldspar and Cornwallstone as their source, and in these we find the Al_2O_3 and SiO_2 so high as to restrict us in the amount of either of these materials that can be used.

(2) Increase of the alkalies at the expense of the alkaline earths results in glazes that are more liable to craze.

(f) *Zinc Oxide.*

Zinc oxide cannot be used in any glaze where the green tint from chromium is an element of the desired color or tint. In all other glazes, whether colored or colorless, a limited amount of zinc adds not only to the fusibility, heat range, but also to the brilliancy of gloss and ability to withstand the strains which otherwise would result in crazing.

As high as 0.3 equivalent of zinc oxide has been used successfully in glazes, this maximum limit being dependent upon the number of equivalent of PbO, KNaO and CaO present. ZnO would hardly be substituted altogether in the place of CaO, not only on account of expense, but also on account of the effect on the general properties of the fused glaze. It is best to have ratio of ZnO to CaO not more than 1:1 and generally about 1:2 or 1:3.

Zinc oxide is not necessary in any raw lead glaze, unless to counteract crazing in the more fluid of those which are relatively high in lead and low in Al_2O_3, as in the following example:

$$\left.\begin{matrix} 0.7\ PbO \\ 0.1\ K_2O \\ 0.1\ CaO \\ 0.1\ ZnO \end{matrix}\right\} 0.15\ Al_2O_3\ 1.5\ SiO_2$$

With zinc oxide in limited amounts, the equivalent of lead may be reduced and yet maintain equal fluidity of the glaze and slightly less yellow tint.

(g) *Barium Oxide.*

Barium oxide, or barium carbonate cannot be used as a raw lead glaze ingredient except in matt glazes, or in glazes subject to long glost heat treatment. Barium carbonate dissociates so slowly that the heat treatment usually employed in raw lead glaze gloss fires does not afford opportunity to the BaO to enter into solution, hence its use in immature matt glazes. In fritted glazes, however, barium is a very good fluxing material and can be substituted largely for PbO.

(h) *Magnesium Oxide or Carbonate.*

Magnesium oxides can be used in raw lead glazes, the same as calcium, but the advantages of this is not apparent, if indeed there is any. Unless added as dolomite, it would be too expensive. The magnesium carbonate dissociates less readily than calcium carbonate and its rate of solution in the glaze materially varies with the rate of increase of temperature of the kiln, making it necessary to have a quick or sharp gloss heat treatment if maximum gloss and flowing of the glaze is required.

Defects in Raw Lead Glazes

Raw lead glazes are liable to all defects which may be found in any glaze. Seger has amply discussed these defects, hence we cannot do better than to refer to pages 572-615 of Volume 2, "Seger's Collected Writings."

(1) Trans. A. C. S., Vol. II, page 151.
(2) " " " " " III, " 82.
(3) Seger's Collected Writings, Vol. II, p. 569.
(4) Trans. A. C. S., Vol. V, p 305.
(5) " " " " " V, p. 136.
(6) " " " " " XI, p. 99.
(7) Trans. A. C. S., Vol. X, page 450.
(8) Seger's Collected Writings, Vol. 2, p. 569. Wherever the word basic oxide occurs in brackets Seger used in its place the term "flux."

One of the Showrooms of Vogt and Dose, 43 Barclay Street

Gathered in Gotham

Being an Account of Some of the New Things on the Market, and Where to Get Them

FRANK S. WARREN, 25 West Broadway, is showing many new pieces of Royal Worcester. Service plates and tea ware, decorated with two tones of one color—such as green or red—with underglaze painted flowers in panels and with lines and bands of gold are attractive in appearance and cleverly executed. An elevated revolving tea tray for afternoon tea is an old English idea revived. Four new open stock dinner ware patterns have been received and orders may soon be delivered direct from New York. A new eleven-inch service plate is in gold incrustations with hand painted floral decoration. Another is of raised gold on an ivory ground. The advantage of the larger plate is that the decoration is always visible.

A. L. Tuska, Son & Company are now well located in their new quarters, at 114 East Sixteenth Street, where they moved in July. China novelties, art pottery, brassware, basket ware, and bronzes are shown on the main floor. The goods are neatly arranged on tables and shelves. The firm will carry its stock at Bush Terminal and eventually discontinue the showroom on Murray Street.

Large additions are being made to the samples carried by Vogt & Dose, at 43 Barclay Street. The lines, both in white and decorated china, are already extensive and new samples must be indeed extraordinary to surpass the old. The Vogt & Dose showrooms, one of which is illustrated above, are among the prettiest in the city. On the second floor goods are cleverly arranged on rectangular tables covered with white and on shelves with a red background. Among the prettiest sets shown is a white body with a decoration in gold and daisies. Another popular decoration is that in gold and apple blossoms.

Vase with Diamond Engraved Floral Design—Brodsky and Sovak

John Cross, 76 Park Place, is showing many new samples in floral cutting from the factory of the Honesdale Union Cut Glass Company, on a full line of bowls, vases, jugs and stemware. The new pattern is known as the *thistle* and *wild rose* cutting.

Robert Slimmon & Company, 96 Church Street, are now showing, from the Wilkinson factory, the biggest variety of high class patterns ever done, and have certainly drawn away from the ordinary patterns which have been placed on the market during the last few years. Special attention should be made of the *Singapore* pattern, which is a high class enameling in new colors with colored lines, and a line of neat enameled borders with brush color lines. From the Robert Hanley Company, is a new shape, the *Chester,* in a large variety of patterns, including plain prints, unillumined prints, and designs with solid gold handles. Bow & Leigh are showing some very neat decorations, on the *Royal* shape, in both colored brush lines and scoured gold. There is also a high class enameled pattern and a variety of first class prints in blue willow. J. H. Weatherby & Sons have a new shape with several new patterns and plain prints and a highly decorated Japanese pattern also on a new shape. The line of teapots from Sudlows need no recommendation to the trade.

A combination salt and pepper shaker is being shown by Fensterer & Ruhe, 47 Murray Street. The shaker, in one piece, is divided in two sections. A controller fits in the round German silver top and permits only one condiment to issue at a time. As the controller moves from one side to the other, it scrapes the inside of the top and keeps the holes from clogging. The convenience of the receptacle is evident. There are also some eleven-inch English bone china service plates, with white body and raised gold border and band; a complete tea set in green, in a Chinese pattern; and a new pattern in English china in enameled colors, the border being decorated with grape vine, leaf and fruit.

Doctor & Solomon, 25 West Broadway, have taken on the line of the Modern Art Company, of Philadelphia, manufacturers of *terra rosa* statuary. The ware is made in a general line of art subjects.

New samples of Hammersly's high grade English bone china may be seen at the showrooms of George Hamilton, 25 West Broadway. The special feature is in enameled and raised gold effects. Two pretty service plates have white bodies with rims of yellow or green, over which is a raised gold floral design. Some pieces are white with rims of raised gold and no other decoration, while others have a dainty floral design enameled in the center. From Furnivals, Ltd., are many new patterns in dinner ware; hotel ware in bands, lines and prints; and the usual lines in monogram work.

Mogie, Momonoi & Company, 11 Barclay Street, are showing new china samples in assorted packages for fall trade. These are mostly in tea sets and fancy dishes. The principal decorations are in gold and violets, and gold and roses.

The firm of O'Donnel & Dorner, 19 Park Place, has been dissolved, Mr. O'Donnel remaining in business. The silver deposit line of the Richter Manufacturing Company, of Providence, R. I., has been added.

Toilet Set in Green Double Crystal—Brodsky and Sovak

Twenty or thirty new dinnerware patterns in raised enamel borders and decorations of the floral and conventional or a combination of both treatments, are being shown by Meakin & Ridgway, 45 West Fourth Street. A specialty is being made of highly colored work and some very effective patterns of this kind have already been brought out. A new heavy ware, the *Titian,* has been added to the Ridgway lines.

A. C. Dorner, formerly of O'Donnell & Dorner, 19 Park Place, has opened showrooms at 25 West Broadway, in the quarters formerly occupied by the Royal Copenhagen Porcelain Works. He is showing full lines of samples from the factory of the D. E. McNicol Pottery Company and from Dorner Brothers cut glass works.

E. W. Hammond, formerly at 65 West Broadway, became vice-president of the W. H. Dunn & Company, 54 Murray Street, September 1st. He will continue to handle the cut glass line of Emil Kupfer.

In the future the Michigan Cut Glass Company of Lansing, Michigan, will be represented in the eastern territory by Cox & Lafferty, 25 Park Place, where a complete line of sample goods will be on display. Michigan cut glass enjoys the reputation of being a remarkably fine product. It is fabricated out of superior flint glass, distinctive in design, and cut with care, and those who handle it will have no difficulty in turning it into profit.

Brodsky & Sovak, 366 Fifth Avenue, continue to show many new things in stem ware and table glass from the factory of Count Harrach, varying in design from plain to highly decorated patterns. The exhibit includes also the latest novelties in table services, table decorations, crystal and colored vases, bowls, baskets and ice sets. The vase illustrated is in crystal glass with a diamond engraved floral design, and the other, of a toilet set in grass green double crystal.

The Jefferson Glass Company, Follansbee, W. Va., has opened another New York office, at 105 West Fortieth Street. E. E. Trimble and Ulysses Skelton are in charge.

Pointers on Pottery

(*Continued from page* 8)

does not necessarily exhibit style. A man may be a good workman and have no taste, just as a good workman may be a man without character. The work reflects the personality of the man in proportion to the display of his individuality. In this is the especial value of hand work and of clay work in particular. It is sometimes said of a girl that she is one at whom men will look a second time. This may be taken in two ways. It may indicate deliberate and suggestive display appealing to the baser instincts or it may mean an unusual degree of refined, womanly bearing which all men revere. It is in the latter sense that style is meant. Sometimes on rapidly passing a store window the eye is caught by a piece of pottery or china so unusual that the steps are arrested for a second look. It is style or character in the piece which makes this forcible appeal and there is nothing else that can do it.

To sum up, then, the critic, whether buying or selling, will look first for form. Good design, a clear conception of purpose and fitness in expression. Then for craftsmanship. A mastery of materials and processes, clean cut and definite. An intelligent idea of the thought to be presented and lastly he will seek for the compelling influence of character and individuality which is known as style and without which any piece of work, however well executed, is meaningless and vain.

The Clay Products Exposition

The Clay Products Exposition, which, as announced in the August issue of POTTERY & GLASS, is to be held in the Coliseum in Chicago, March 7-12, 1912, is progressing favorably. The managers have already received a sufficient number of applications to insure a representative exhibition of clay wares, and it is desired that enough manufacturers may be interested in the project to make it purely a clay products exposition without asking the assistance of allied industries. It is therefore the duty of every manufacturer to offer his heartiest co-operation and support.

The advantages to be gained through the operation of such a show are evident, and there can be no question as to its value for every manufacturer of clay products. In addition to the opportunity for a practical demonstration of the merits of clay products, before the thousands of people who will visit the show, is the advantage to be gained through the resulting publicity and the opportunities for subsequent business that will be offered.

In collecting exhibits, it is important that every use of clay be shown and that the public be convinced of the superiority of clay for the uses to which it is put. Your product will be of interest, and it is not too early to engage a space. Further information may be secured from a prospectus which has been published by the management or upon communication with the Secretary, F. L. Hopley, 816 Chamber of Commerce Building, Chicago.

Cover of Prospectus—Clay Products Exposition

Rare China, Real and False

Means by Which the Genuine Can be Distinguished From the Spurious—Reproductions of English China with American Views

THE counterfeiting of genuine objects of virtue is not a recent practice, as some writers would have us believe. The Chinese have for several centuries imitated and reproduced their own famed fabrics of earlier times, and with full intent to deceive have placed upon them the same characters or marks which distinguished the originals. In Europe the forging of bric-à-brac can be traced back for a century or more.

Wherever collectors of rare and beautiful art works sprang up skilled copyists began to turn their talents to profitable account. As early as the year 1815 one Bettignies, an accomplished potter of Saint Amand les Eaux, in France, commenced the counterfeiting of the beautiful soft paste porcelain of the Sevres factory, and examples of his work which are still extant are among the most perfect reproductions which have ever appeared.

In the latter half of the nineteenth century many wealthy citizens of this country traveling abroad began to collect representative examples of pottery and porcelain from the celebrated factories of Europe and brought back with them extensive and valuable collections of these wares. But among these treasures were numerous pieces of questionable character which have since been proved to be spurious. No collector of that period appears to have escaped entirely the wiles of the forgers, who were even then plying their trade with little chance of detection.

Most of these collections have since passed into the possession of public museums, and many of them under expert inspection have been gradually reduced by the elimination of fraudulent specimens. In certain museums, however, these collections are still exhibited intact, no attempt having been made, for political reasons, to withdraw the obviously fraudulent pieces.

After the centennial exhibition in Philadelphia in 1876 the number of art collectors increased rapidly. As certain classes of objects became popular their modern counterparts appeared in increasing numbers, but some time elapsed before collectors began to discriminate between the genuine and false. Collections formed about that time frequently contain many rare and priceless things, but among them will always be found a large proportion of worthless reproductions. As authentic objects became scarcer the modern mock wares became more plentiful, and within the last twenty years the latter have outnumbered the former a thousand to one.

Admitting that these humbugs and shams are unworthy to be collected when they are known to be such, the question may naturally be asked, Why should the folly of wisdom be forced upon the possessors of mock wares "where ignorance is bliss"? Do they not derive as much enjoyment from their fancied treasures as do the initiated in the possession of veritable antiques? The answer to this is plain. The majority of collectors regard the gratification of a hobby in the light of an investment on which they may at some future time be compelled to realize, and it is of the first importance that good judgment be used in acquiring such things as will always be worth at least the price of purchase.

Sooner or later almost every private collection finds its way into the market to be sold at a profit or a sacrifice. The inexpert buyer or his heirs will inevitably discover some day when too late that his hoardings have turned to dust. More than one instance can be recalled where a collector of long standing who enjoyed a local reputation as an authority in his special branch left to his family at his death a lot of rubbish which then sold brought scarcely enough to pay the expenses of the auctioneer; and there has probably been no collection of ceramics sold in recent years which did not contain at least a sprinkling of fraudulent pieces.

English Cream Wares

Some of the more enterprising manufacturers of imitation wares in Europe maintain a force of salesmen who are sent out periodically into almost every civilized country, including the United States, to supply the wants of dealers. Some of these agents make a tour of the American cities once or twice a year, leaving in their wake hundreds of counterfeit examples which are displayed for sale in many of the antique shops. Frequently these worthless copies find their way to the shelves of supposedly reputable dealers, to be sold without comment or frankly acknowledged to be frauds if the question of their genuineness should be raised.

Among these productions are jugs of various sizes, usually low and squatty, bearing on their sides printed portrait busts of Washington and Lafayette, in commemoration of the latter's visit to this country in 1825. These particular fabrications are so crude and clumsy that it is astonishing that they should mislead the most ignorant. They are thick and heavy and more of the nature of vitrified ironstone china than the thin, light cream ware which they are supposed to imitate. The black portraits are coarsely engraved and badly printed, being usually much paler than the engravings of the genuine wares.

One of the most common reproductions of this kind is a small jug of the Liverpool type with red print representing Napoleon I standing with one foot on Germany in the map of Europe and holding the other

foot above Holland. The design is labelled "The Governor of Europe Stopped in His Career." On the reverse side is inscribed "Success to the Volunteers." The clay is of a deep creamy tint and the surface is not crackled, but the ware is thick and heavy and so hard that it almost approaches stoneware. The genuine pieces are thin and light in weight.

Another small jug of the same form is embellished with black printed portraits of "Fayette, the Nation's Guest," and "Benj Franklin L.L. D., F.R.S. Born at Boston New England 17 Jan. 1706," on the sides, and the American eagle in front, surrounded by the inscription, "Republicans are not always ungrateful," beneath which is the firm name of the supposed manufacturers, "Ricd Hall and Sons." These jugs are finely crackled. The body is dense and hard and of a deep color almost approaching pink, very different from the pale cream color with greenish glaze of the old pieces. The latter always possess a pointed lip whose upper line is a continuation of the horizontal line of the rim. The lips of the counterfeits of this design, and also of the Napoleon jugs described above, are curved upward, somewhat beyond the line of the top rim. These same portraits of Washington and Franklin are also being printed on small circular plaques.

Anglo-American pottery, or old English china with American views, has also been extensively imitated in late years, and the principal distributing point for these forgeries has been the city of Baltimore. Thousands of these spurious productions have been sent from that city to every section of the Union, and almost every collection of "historical china" which has been formed within the last ten years will be found to contain one or more examples of these facsimiles. It is probable that almost every important design in dark blue has been copied. Among the subjects known to have been reproduced are Doctor Syntax designs, Harvard College, the twin heads of Washington and Lafayette in black or red, the view of Fairmount, near Philadelphia, State's design; landing of Lafayette, and Gilpin's Mills, on Brandywine Creek.

The "Anti-Slavery" design, in light blue, has also been copied extensively, and hundreds of examples, fresh from the factory, have been sold to collectors at fifteen and twenty dollars each. Dozens of these have been traced to one country dealer, who acted as agent for the Baltimore concern, and when the numerous victims, scattered in various parts of the country, becoming suspicious, began to compare notes, it was found that this dealer's stock of "two plates, found in possession of an old family in an out-of-the-way place," was always on tap but never depleted.

In almost every public sale of old china some of these worthless fabrications are sure to turn up. But so many collectors of Anglo-American pottery have been swindled into paying high prices for these trashy imitations that they have become suspicious of everything that comes from Baltimore, and the honest dealers in that city have suffered with the guilty.

The designs which have been counterfeited have greatly depreciated in value by reproduction, as even genuine "American views" are now looked upon with suspicion because the average collector is unable to distinguish the new from the old. There are, however, several marked differences which can be detected by the observing collector.

It will be found on careful examination that the older pieces are usually more or less covered with a fine network of crazing. On the backs of plates concentric circular cracks running around the rim or the crease near where the depression commences, may frequently be observed. They are the marks of age caused by the gradual contraction of the glaze or body. Nine-tenths of the genuine pieces are thus distinguishable.

On the other hand many carefully preserved examples are as fresh and good looking and free from crazing as when they came from the kiln. In such cases the would-be purchaser must rely on other tests, such as the lightness of weight, the pale cream color of the body and the presence of the cockspur marks (one on the face at three equidistant points and three arranged in triangular form at three places on the back of the rim, since the pieces were placed in the kiln face downward, resting on the three single points of the cockspurs, which were placed on the under side of the next plate beneath).

In the counterfeit pieces the ware is heavier and more thoroughly vitrified, the glaze is thicker, the tint of the blue not so deep or purplish in tone and the cockspur marks are usually absent. Sometimes fraudulent pieces have been scratched with sandpaper in imitation of knife marks, but the scratches run in parallel lines instead of crossing each other at every angle, which is the case where the markings are the result of long use.

To simulate the appearance of age the creases or depressions on the backs are sometimes touched with brown paint in imitation of china rust. Spurious pieces never possess the fine, natural crazing of the genuine cream ware and the paste of the imitations is of a deeper cream color. There will also frequently be found differences in the marks of the old and new pieces. There are counterfeits of the Dr. Syntax plates with the circular impressed mark of Clews, the maker, of a considerably larger size than that found on genuine examples.

A little experience and careful observation on the part of the collector will enable him to detect fraudulent pieces of this class of ware with considerable ease.

All varieties of Staffordshire cream ware are copied extensively, and these modern imitations will be found in quantities in almost all shops where antique china is sold, not only in the United States, but in Mexico, where English ware is popular. Cups and saucers of gaudy colored ware, printed china and similar ware are reproduced and a cup and saucer with black transfer bust of Washington, which was never used on old pieces of these forms, is among the recent fabrications.

Among the Staffordshire productions of about 1820 made especially for the American market is a pattern which is familiar to all collectors of "historical china."

It is usually found on small octagonal or circular plates, a crude representation of the American eagle surrounded by thirteen stars, painted in bright colors. At a little shop in an inland Pennsylvania town a plate of this character was about to be purchased by a collector in the presence of the writer.

Something in the appearance of the decoration attracted the latter's attention, who thereupon asked the dealer if he would guarantee the piece to be genuine. Being assured that the specimen was authentic, the writer opened his penknife and with one sweep of the blade removed enough of the superficial decoration to reveal the white glaze beneath. The entire surface of the undecorated plate had been covered with white oil paint, over which the arms of the United States had been copied from a genuine piece.

Small plates with embossed and colored Masonic and Odd Fellows symbols in the border and printed and colored designs in the center have recently appeared on the market in abundance. They have been copied from old Staffordshire pieces. The paste is yellowish and much darker than that of the old cream color pieces. The glaze usually contains dust specks and the colors have been roughly daubed on the reliefs. Small cream ware plates, with the letters of the alphabet embossed on the margins, are also reproduced in large numbers from old models by Staffordshire potters. These reproductions can be recognized by their new, bright, unused appearance and poor painting.

Jugs of the typical Liverpool form are now being extensively reproduced. One design frequently met with bears on one side the transfer printed representation of the ship Caroline On the other side is the Wheelwright's Arms, while in front, beneath the lip, is the American eagle and thirteen stars, beneath which is the name of James Leech. Parts of the black print are rudely daubed with green enamel color.

These jugs are of several sizes. The surface is artificially crackled. They are made in London by an extensive manufacturer of reproductions of all varieties of old English wares, Chelsea figures, Derby dwarfs, Liverpool cream ware jugs, Staffordshire mugs, Lafayette and Washington pitchers, Worcester figures and porcelain, Lowestoft porcelain and hard paste German figures. He also reproduces the following blue transfer printed Syntax designs in plates: Dr. Syntax taking possession of his Living, Dr. Syntax disputing his Bill, Dr. Syntax sketching, Dr. Syntax bound to a Tree, Dr. Syntax takes a Gentleman's House for an Inn, Dr. Syntax reading his Tour, and Death of Punch.

These imitations are made of ironstone china very thick and heavy and coarsely crackled, brown stain being rubbed into the cracks. The blue of the engraving is weak and poor. On the bases of these plates will usually be found the fractional number 5-10 stamped in the clay. These plates measure ten and three-eighths inches in diameter. No one who has ever examined an original could be deceived by them.

The same dealer also manufactures copies of the Peter Bates two handled loving cup or mug, dated 1802; bowls with busts of Washington, Lafayette and Franklin; circular plaques with heads of Washington and Franklin, Napoleon jugs printed in red, a bust of Washington, faun's head cups and frog mugs. These reproductions are made in large quantities and sold as modern wares at prices considerably less than old pieces of similar pattern would command. The maker takes the ground that many people do not care whether specimens are old or new and that they would prefer to pay a low price for a reproduction rather than a high price for an original. While there appears to be no deception in these statements, it is an indisputable fact that many dealers purchase these wares for the express purpose of palming them off on ignorant customers as genuine.

A Staffordshire statuette which is being copied extensively at the present time is the full length figure of Benjamin Franklin about a foot in height. The coat is usually covered with dark blue glaze, the waistcoat being painted with a figured or flowered design in colors, occasionally combined with gilding.

Enoch Wood's twin figures of Washington and Franklin, produced about 1800, were often labelled wrongly, the name of Washington being sometimes attached to the statuette of Franklin, and vice versa. In the modern copies this error has often purposely been imitated in order to deceive. Many of the modern forgeries of these figures are so carelessly colored that the thick blue of the coat has trickled down and overflowed on the parts which should have remained white, a defect which is seldom if ever to be observed on genuine old pieces.

It is believed that the original of this Franklin figure was first produced at Mexboro, England, about 1820. It is quite different in form and execution from the statuette produced at an earlier period by Enoch Wood. But even these Mexboro figures are now being imitated, and there is a late one which might readily pass for an example of the 1820 issue. A close inspection, however, reveals the fact that there is no crazing of the glaze, which is a characteristic of the older ware, and it weighs exactly one-half more than the Mexboro figure. In some of the new pieces there is a small hole in the back, through which the paste in the thin parts is seen to be translucent, showing that the paste is semi-porcelanous instead of being opaque, as in the original cream ware pieces.—Edwin Atlee Barber, in the New York Sun.

The British Pottery Trade

PROSPEROUS conditions in the pottery industry in Stoke-on-Trent, which began during 1910, have continued throughout the half year just ended. The festivities and celebrations throughout the Kingdom commemorating the crowning of the King have brought about a large expenditure of money in many directions, and have furnished the pottery manufacturers in particular with a very marked increase of business.

It has been customary in all the towns to give the children a "coronation treat," and in many cases to

present them decorated souvenir mugs or beakers. Millions of such mugs and beakers for presentation purposes have been made in Stoke-on-Trent, and the benefits the industry has received would have been greater but for the cutting of prices. Many orders were placed at as low as thirty-six cents the dozen, and it was really astonishing what attractive looking articles were turned out for this price. However, for most of the orders better prices were obtained, and it is safe to say that the extra business that has come to this district through the coronation represents hundreds of thousands of dollars.

The coronation has thus not only benefited the manufacturers, but has brought a welcome addition to the wages of the pottery workers. The latter have not for many a decade experienced so busy a time as they have had during the last six months. Not a few firms have had to neglect their ordinary trade in order to take up coronation contracts. Others have resolutely declined to touch the coronation business, finding that there was plenty to do with the ordinary trade.

Apart from the coronation orders the domestic trade has for some time been above the average and generally speaking it remains brisk and healthy in tone. The export trade in both china and earthenware continues very good. It is impossible to give the export figures for this district except to the United States. The Board of Trade returns for the entire Kingdom, however, are generally indicative of the export trade from this district, as it is estimated that about ninety per cent. of the pottery manufactured in the Kingdom comes from Stoke-on-Trent.

During June, 1911, ware was exported to the value of $1,209,062, as compared with $1,066,664 during June of the previous year, an increase of $142,398. In the first six months of 1911 the value of the pottery exports was $7,293,613, against $6,193,278 for the first six months of 1910, an increase of $1,100,335. Notable increases in exports to particular countries during the first half of the year were approximately as follows: France, $70,000, or fifty per cent.; Brazil, $200,000, or forty-five per cent.; New Zealand, $85,000, or forty per cent.; Argentina, $130,000.

Exports from this consular district to the United States for both the quarter and the half-year ending June 30 show a considerable decrease. For the quarter ending June 30, 1911, the exports to the United States were $509,149, a decrease of $104,484 as compared with the corresponding quarter of 1910. For the six months ending June 30, 1911, the exports were $1,113,746, a decrease of $135,390 as compared with the corresponding period of the preceding year. The exports of earthenware to the United States during the second quarter of 1911 were valued at $404,038, a decrease of $56,863 as compared with the corresponding period of 1910, and the exports of china $49,394, a decrease of $23,705. The value of the total exports to the United States for the second quarter of 1911 is lower than for any quarter, except the last quarter of 1908, in many years.—Edward B. Walker.

Glass Beads

THE sudden demand for glass beads, which has recently sprung up, and the increased demand on the different manufacturers for them came unexpectedly even to the bead industry itself, because these colored glass and metal beads, as a material for artistic effects, had been almost completely forgotten for a number of years, and the rich, fantastical, color schemes, which it is possible to carry out with beads, were greatly undervalued.

This change is due chiefly to the search for sparkling color effects for decorating modern costumes for women, the designers again resorting to colored beads. Interior decorators, makers of textiles, and manufacturers of gas and electric light fixtures, have also recognized the value of colored glass beads for decorative purposes. The glass bead manufacturers have observed this and sought to meet the various requirements, but have had no time to increase the market through their own models and ideas, because current orders must first be filled.

In the opinion of dealers in glass and metal beads, the varieties of round, long, and flat beads, as well as the fine varieties of shades in colors that are offered, will be sufficient; but the so-called figure beads, for instance, those that are made to represent separate parts of plants in miniature, are practically not obtainable. Consequently, designs or mosaics can be made only after laborious and difficult fine work, which should not be necessary. Here is an opportunity for American exporters to meet the needs of European houses.

A great many of the technical branches have these beads made to order after their own design, and some pretty novelties for decorating the hair are being made from them, such as diadem bands, nets for the hair, and turban hoods. The beads used for these articles are strung on strong silk thread or thin wires and are made in the colors that are fashionable for the toilet. It is uncertain whether the latest novelty from Paris, "flowers made of glass beads," intended for decorating hats, will find a ready market in Germany, although the models on sale are beautiful in color and graceful in form. It is said that one great advantage these have over other artificial flowers is that the colors do not fade in the sun, and they are, therefore, especially suitable for summer hats.

These beads are in great demand this season for decorating women's costumes, which opens a large field to manufacturers in this line. The metal industry is also becoming interested in glass beads as a decorative material. The color of the metal is offset by that of the beads, and the effect produced is excellent and should lead to large sales. The present demand for bead bags is enormous, not only in Europe, but also in other countries. It is said that the demand from England especially for this article has been so great that it is impossible for manufacturers to fill the orders received.—Consul General Frank Dillingham, Coburg, Germany.

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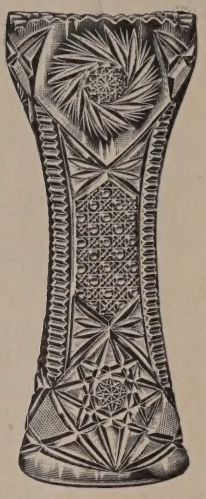

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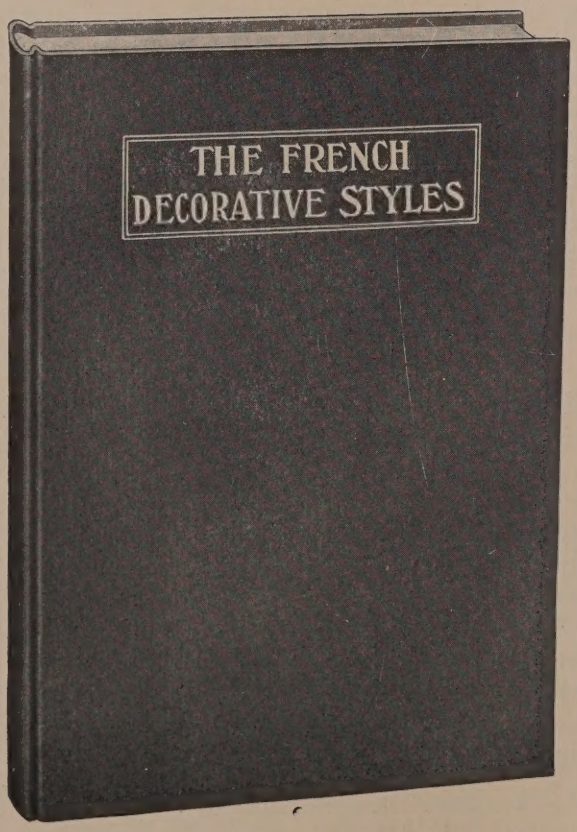

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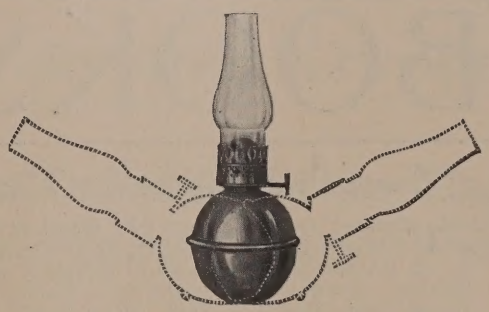

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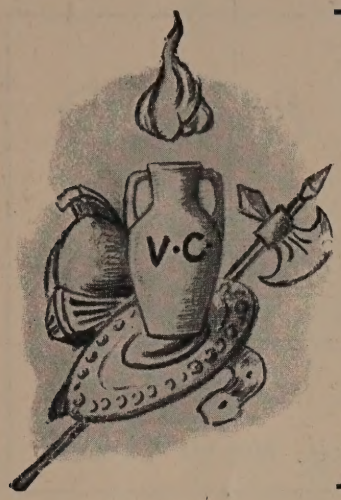

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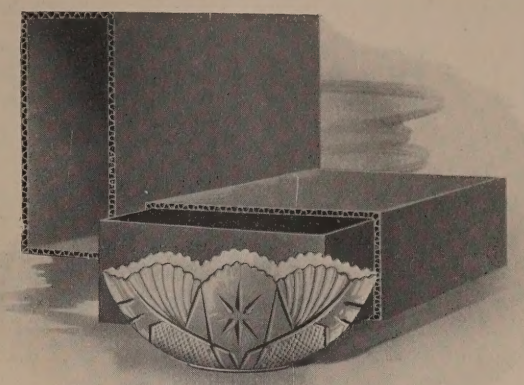

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